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ASIATIC RESEARCHES;

OR,

TRANSACTIONS

OF THE

SOCIETY INSTITUTED IN BENGAL,

For inquiring into the

History and Antiquities,

THE ARTS, SCIENCES, AND LITERATURE,

OF

ASIA.

VOLUME THE TENTH.

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THE WATER OF THE PARTY

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I TAKE this opportunity to correct two passages in former Essays; one in the IVth Vol. of the Asiatic Researches, p. 382: and the second in the first part of my Essay on the Sacred Isles in the West, p. 302.

In the latter, I said that the famous PR'A'N-PUR's went no further than *El-Catif* and *Baharein*, in his way to *Egypt*. But I was mistaken; for he even attempted to go up the *Tigris*, and went even as far as *Moc'hâ*.

In the former, I asserted that by the Surya-much'hì-gangá, PR'A'N-PURÍ meant the Volga: but I was equally mistaken; for, from his narrative, he certainly understood the Shàt-al-Arab, or the united stream of the Tigris and Euphrates.

I seldom saw PR'A'N-PURÍ, and he hardly condescended to answer my inquiries: hence the information which he communicated, was vague and desultory. I did not advert then to what Mr. DUNCAN has said on the subject in the Vth Vol. of the Asiatic Researches.

F. WILFORD.

BENARES, Feb. 20th, 1808.

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TRANSACTIONS

OF THE

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I.

Remarks on the State of AGRICULTURE, in the District of DINA'JPUR.

BY W. CAREY.

THE soil of the district of Dinájpur is considerably diversified. In the the southern part the ground rises in gentle acclivities, which run from north to south, and are divided from each other by vallies running between them; the whole resembling large waves, or rather the appearance of the sea when there is a great swell. The width of each valley is two or three miles, and that of the elevations about the same. Each valley is watered with one or two little streams, as the Tanguam, the Púrnabhavá, and several others, which empty themselves either into the Mahánandá or the Ganges. These small rivers swell in the rainy season to large lakes, fifty or sixty miles in length, and two or three in breadth, overflowing all the low lands, which are dry in the cold season. These vallies, at the distance of fifty miles from the Ganges, are scarcely

higher than the surface of its waters; when therefore that river is swollen by the periodical rains, the waters of the vallies are not only prevented from running off, but are so much increased as to be navigable for vessels of very considerable burden.

The soil of the elevated portions of land is in general a stiff clay, in some places black, and somewhat porous, in others white and tenacious. The soil of some of the vallies resembles that of the elevated parts, and that of others is rich and loamy, with a substratum, at a greater or lesser depth, of the same kind of clay which forms the higher grounds. These low lands are for the most part covered with long grass of different sorts, and afford pasture to a great number of buffaloes and to large herds of other cattle.

The northern parts of the district are more level than the southern ones, have a loamy soil, and are well cultivated. Some tracts of clay land are, however, to be found, and it is probable that clay is the substratum of the whole.

The higher lands in the southern parts of the district are principally inhabited by Musulmans, and the vallies by Hindus. The mode of cultivation and the productions of the elevated parts, differ widely from those of the vallies, so that those who have been accustomed to one of these sorts of land only, can seldom manage the other to advantage.

On the higher clay lands very little besides rice is produced, and, excepting very small spots which are well manured, only one crop in

a year. The loamy vallies which do not lie so low as to endanger the inundating of the crop, produce, not only rice, but also a good crop of mustard, or pulse in the cold season. The land which produces two crops in a year is called $P\acute{a}lli$, and is usually let at a rupce and half per Bighá. That which produces only one crop is called $Kh\acute{a}r$, and is usually let at twelve annas per Bighá.

The people of the district of Dinajpur are, in general, extremely poor, and their farming utensils are therefore proportionably simple and wretched. A plough drawn by two bullocks, serves to prepare the soil. The plough is composed of four pieces; viz. the Lángal or body of the plough, which is a piece of wood forming two sides of an obtuse-angled triangle, the other side being wanting, with a hole near the obtuse angle to admit a staff of wood or bamboo about six feet long, called the Is'. This staff may be called the beam of the plough, and is the part to which the bullocks are yoked, going between them and resting on the yoke by which they are coupled. The ploughshare (Phál) is a flat plate of iron, nearly of a lozenge shape, which is fastened to the under part of the Lángal, to prevent its being worn by the soil. The handle is a piece of wood, or bamboo, about two feet long, fastened to the upper extremity of the Lángal, and furnished, at a small distance from its upper end, with a pin about six inches long, called the Mut, to assist the hand in guiding the plough.

The oxen draw double, or side by side, being coupled together with the Juál, or yoke, which passes over the necks of both of them at once. The lower edge, which lies on the necks of the cattle, is straight.

The upper edge has two elevations, one over the neck of each ox, but is cut down at the middle and at each end, so as to remain about two inches deep. Four bamboo pins are passed through the yoke, one at each end, and two in the middle, which, descending on each side the animal's neck, are connected by a cord under its throat. The beam of the plough rests on the middle of the yoke, and is fastened to it by a cord.

Only one person attends a plough, holding the handle in one hand, and occasionally pulling the tails of the oxen with the other, to guide them, or striking them with a stick to quicken their pace. A pair of oxen may be purchased for six or eight rupees, a plough for five annas, and a yoke for four. An instrument called Maï is drawn over the field after it has been sufficiently ploughed. This may be called the harrow of the *Hindus*. It is made of bamboo, in the form of a ladder, and is four or five feet in length. A cord, fastened to the centre of this rude instrument, is connected with the centre of the yoke, and the driver stands on the harrow, assisting its operation by his weight, and guiding the cattle with his hands. Land pulverized and laid smooth with the Maï retains it moisture, and is fit to receive seed in dry weather, several days longer than it would be if this was neglected. The *Hindus* call the operation, when performed for that purpose, Rasbándhan, or the confining of the moisture.

In dry seasons it is often necessary to water the fields. For this purpose an instrument called a Jántis used. The Jánt is a trough of light wood, from twelve to sixteen feet long, somewhat curved to admit a greater depth in the middle, the bottom is five or six inches wide, the

height of the sides in the middle part is six or eight inches, gradually decreasing towards the ends, one of which is excavated to a point, to prevent the water from running back and being lost. When this instrument is used, it is slung to three bamboos placed erect and crossing each other in the centre; a long and heavy bamboo, loaded at the further end with a large ball of earth, is then fastened to the end which is to be plunged into the water, and thrown over the three erect bamboos, resting on the top of them. A person standing on a stage, even with, or somewhat below the surface of the water of a pond, river, &c. then plunges the end of the Jant into the water, with his foot, by which means it is filled. The weight at the end of the long bamboo assists him in raising it out of the water, and throwing its contents into a small reservoir, or pit, from which it is conveyed into the fields, by channels cut for that purpose. Two feet, or two and a half. is the height to which water can be thrown with effect by this machine: when the height is greater, two, three, or more Jánts are used, and in that case the water is thrown into small reservoirs or pits, at a proper height above each other, and sufficiently deep to admit the next Jánt to be plunged deep enough to fill it. Water is by this means sometimes conveyed to the distance of a mile or more on every side of a large tank or reservoir of water.* I have seen fifty or sixty Jánts at one

^{*} Qu. Is not this the watering with the foot mentioned in Scripture, Deut. xi. ver. 10, and may not there be an allusion to the facility with which this water is directed at the will of the husbandman, in Prov. xxi. ver. 1?

time, in a large receptacle of water called Mahípál-dighi, about six coss from Dinájpur.

To remove earth from one place to another, a yoke of bamboo is furnished with two appendages, called Bhárua, somewhat resembling a coarse sieve, the outside composed of split bamboos wattled or twisted over each other, and the middle part of twine, woven somewhat like the bottom of a sieve. These vessels are about a foot and a half in diameter; when loaded with earth, or any other substance, they are carried with the yoke. The yoke lies across one shoulder, one weight hanging before and the other behind, and is occasionally shifted from one shoulder to the other.

The Kodáli, or digging-hoe is, in this district, set much more towards the earth than in the southern parts of Bengal, forming an angle of about sixty degrees with the handle, whereas about Calcutta the angle is not more than thirty degrees. This instrument is used to dig the earth, or to grub up roots, and destroy the coarse grass, when land is to be first broken up. The Kodáli is a very useful instrument, answering the purpose of both spade and hoe.

The last instrument of husbandry which I shall mention is the Kastya or *Indian* sickle. The blade is curved, and edge-toothed like a sickle, but it is much smaller and more rude than the *European* one. The length of the blade is about eight or ten inches, and its greatest width one and a half. It is fixed in a rude handle; and is used to cut corn, grass, or even brushwood upon occasion, being to the

Hindu a very useful instrument, although a European labourer would scarcely pick one of them up if he saw it lie in the road.

Rice is the staple production of the district. Four kinds (including several varieties) are principally cultivated; viz. the Bhaduí, so called from its ripening in the month Bhádar, the Hemat so denominated from its ripening in the cold season, the Buná, and Bohara.

The first of these is chiefly, though not exclusively, cultivated on the lower, and loamy lands; on these soils it is constantly sown by broad cast, in March, April or May, and the quantity sown depends upon the quantity of rain which falls in those months. The season of cultivation is sometimes extended near a month longer than it would otherwise be, by transplanting the rice, while young, into the fields, or the more elevated lands. When it is sown early on the higher lands a second crop is sometimes produced upon the same spot; but, that which is sown late in the season, ripening proportionably late, so much interferes with the planting of the Hemat rice, that the latter crop is often scarcely worth the gathering.

This rice, when sown on the lower and loamy soils, requires weeding. A large quantity of weeds, particularly panicum ciliare, often springs up among it! these weeds, if not extirpated, infallibly ruin the crop. It is also necessary to open the soil, after a heavy shower, by drawing a large drag over it; but no other attention is requisite, till the harvest, when it is cut and housed in the usual way.

The Hemat rice is usually cultivated on the higher and strong lands,

a stiff soil being better calculated to retain the water after the end of the periodical rains. This rice is usually sown at the end of May, or the beginning of June, in small beds, as thick as it can possibly grow. The plants come up in three or four days after the seed is sown, till which time the ground is kept barely moist: after the plants appear it should be kept quite moist, but not flooded. As soon as the rains commence and the earth is well watered, this rice is planted out in beds, (or compartments) each of which is surrounded with a balk, or border, about ten inches high, and a foot wide, to prevent the water from running off.

When a field is first formed, these mounds or borders are thrown up with the Kodáli. The earth is then repeatedly ploughed, till it is completely mixed with the water, and reduced to a soft mud. Five, six, and sometimes eight ploughings are necessary, to destroy the weeds and completely dissolve the clods, after which it is smoothed by drawing the Mai over it, till the surface is so level that the water stands at an equal height in every part. When the field is thus prepared, the young plants are transplanted from the seed-bed by the hand; eight or ten of them being usually planted in one hole. These holes, which are about nine inches asunder, are made by forcing the hand with the young plant into the mud; the plants are left there in an erect position, after which the admission of water settles the roots. When the whole spot is planted, water is admitted from a neighbouring compartment, or from a ditch, a trench or some other reservoir, and if possible constantly kept at the height of at least three (or four) inches. If there be too much water in the field, it is allowed to run off, by cutting a passage for it through the border, and when a sufficient quantity is run

off, the rest is retained, by shutting the passage with a clod of soft earth. This crop requires no weeding, for at most but a very trifling one, the water being sufficient to destroy the noxious weeds. If the season be very dry, the field must be supplied with water from some neighbouring pond or reservoir, as the only means of preserving the crop: attention to this its peculiarly necessary while the plants are young, for if the earth be permitted to grow hard, the plants seldom thrive afterwards; when they have acquired a size sufficient to overshadow the ground, the moisture is retained for a longer time, and the crop suffers less, but water is absolutely necessary to the perfection of a crop of rice. In November this crop begins to ripen, and the harvest is usually finished by the end of December. As there is little fear of rain at this season, the crop is housed and stacked, without any loss or difficulty.

The Buná rice is usually sown in April or May, in low lands, where a flood of several feet deep may be expected; if the floods come suddenly while the plants are young, the water rises above them and the crop is lost; but if the plants are strong and the water increases gradually, the rice will grow as fast as the water rises. This crop will answer tolerably well, if the water be four, six, or even eight feet in depth, the stalks sometimes acquiring the length of ten or even fifteen feet; but as they are weak and lie in an oblique position, they do not easily rise above eight feet of water. This crop ripens in November. The upper part of the plants on one man's land being drawn by a gentle stream, or by some other cause, often fall on his neighbour's field, and occasion quarrels at the time of reaping.

The Bohara rice is sown in October or November like the Hemat,

and about January planted at the bottoms of tanks, or pits, or on very low ground where it can be supplied with water. It is treated in every respect like the Hemat, and ripens in April or May. This is an excellent sort of rice, but the quantity cultivated is necessarily small.

The next article of cultivation is indigo, a plant for which many parts of this district are improper, as it will not grow on the white clay lands called Balka, is sparingly produced on the black or red clays, and as most of the soft and loamy parts lie so low as to be subject to sudden in-undations, which infallibly destroy the crop.

The proper season for sowing indigo is in April and May. Some have sown it at the end of September or the beginning of October, and others in any month from October to March. That sown in September, or October, or even in November, will frequently produce a crop, if the land be not low and damp. It is better to sow on low damp soils, in December, January and February, when the season will soon become warm enough to obviate the danger arising from the Some have sown a winter crop with this indigo, which as it affords the young plants a shelter in the cold season, may be esteemed a good method. Mustard, ripening very early, is the most improper for this purpose, because it leaves the indigo exposed at the very season in which it requires shelter. The young plants, at this season of the year, are often greatly injured by the treading of cattle; and the crop is seldom so good as that which is sown in the proper season. the season be favourable, and the whole crop be sown in March, April or May, (for which repeated rain is absolutely necessary,) and be weeded before the periodical rains set in, an abundant crop may be expected.

Indigo sown in June seldom repays the labour of the husbandman, the rains, then setting in, usually injure the plant while young, or produce weeds in such abundance, that it is choked by them, and generally perishes.

The present method of cultivating indigo is subject to many inconveniences, and therefore liable to many objections; but as the whole business is conducted by giving advances of money to the Ryots, previously to their sowing the seed, and by receiving the produce at a certain number of bundles of a given measure for a rupee, and as many of them scarcely ever intend to fulfil their engagements, the application of a remedy would be difficult, especially as the devising of it must depend upon experiments, to the making of which the poverty and prejudices of the cultivators would prove an almost invincible obstacle.

Corchorus olitorius, Corchorus capsularis, and Crotalaria juncea are sown in April, May, or June. The fibres of these plants are much used for cordage, and for making sackcloth, and are very valuable for these purposes. The Eschynomene cannabina, is sometimes, though but seldom, sown in this district, but is more abundantly cultivated in the southern parts of Bengal. The fibre of this plant isless valuable than that of the Corchorus. There are two varieties of the Crotalaria juncea; one, sown at this season, often grows ten or twelve-feet high; the other variety is sown in October, and rises to the height of four or five feet.

After the earth is properly ploughed, cleansed, and pulverized,

the seeds of these plants are sown very thickly. The natives say that they should be sown so close together that a serpent cannot creep between them. This prevents the plants from throwing out branches, which would be highly injurious to the fibre.

As the growth of these plants is extremely rapid, the crops suffer but little from weeds; if the weeds however should be numerous, they must be extirpated by the hand.

When the Sana* has done flowering, and the seed vessels have nearly attained their full size, sometime before the seeds ripen, it is cut down, and tied in small bundles, each containing ten or a dozen plants. The bundles are then set upright in water (about a foot or a foot and a half of the lower part of the stalk being immersed) and continue in that situation one day; by this means the upper, and comparatively tender, part of the stalk is somewhat dried. This occasions a greater similarity in the quality of the fibre taken from different parts of the same plant.

After the Sana has thus stood erect for one day, it is steeped in a pond, or some other receptacle of water, to promote the separation of the fibre from the stalk. This process is as follows: a number of the small bundles abovementioned are laid one upon another, so as to form a heap five or six feet wide, on each side of which three or four stakes are previously set, to prevent its falling down. A quantity of cow-dung is then spread over the heap, about two or three inches in

Crotalaria juncea.

thickness; upon this a layer of straw of about a foot and a half, and over the whole a quantity of earth sufficient to sink the heap till the upper part is five or six inches below the surface of the water. In two days and a half, or three days at farthest, the putrid fermentation is carried to a sufficient extent.

The Sana is then taken out, and the fibre stripped from the stalk in the following manner. A man standing up to his knees in the water, takes a few of the stalks, and, having broken them about a foot from the lower end, holds them with the large ends from him, and strikes them on the surface of the water, till the broken pieces are separated and fall off. Then turning them, he takes hold of the fibres which are freed from the broken pieces, and beats the small ends, in the same manner, on the water, till the fibre is entirely separated from the stalks; a few strokes are sufficient, and by a few more it is cleansed from any mucus, or fragments of stalks which may have adhered to it. It is then dried and packed up for the market.

The chief thing to be attended to in this process, is the proper regulation of the putrid fermentation; if this be not carried to a sufficient extent, the fibre willing separate, and if carried too far, the quality is injured. The most experienced natives account two days and a half a proper medium. The fermentation is doubtless quickened or retarded by the state of the weather, but the difference occasioned thereby is so small, that the Bengal farmers entirely disregard it.

The Crotalaria, cultivated in the neighbourhood of Calcutta, and

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probably that cultivated in all the southern parts of Bengal, is accounted much inferior to that cultivated in the northern parts of the country. The natives attribute this to the difference of soil. This may have some effect, but it is probable that the variety cultivated in the south, is inferior to that cultivated in the north; as, even there, the large variety is preferred to the smaller one.

Phaseolus Mungo is usually sown in small fields about the beginning of June, and generally produces a good crop; it will thrive only on high and good land. Phaseolus radiatus is sown in July and August, on land where another crop has failed, and, not unfrequently, on old sward, or on land which could not be regularly cultivated. The seed is scattered over the land, often without any ploughing at all, and at most the plough is only drawn over the surface so as to make a few slight scratches. This crop ripens in October. It is obvious that much produce is not to be expected from such a mode of culture. The crops are indeed light, but are often sufficient to pay the rent of the land. A more rational method of cultivation would doubtless be far more productive.

The low and loamy soils, after having produced a crop of early rice, are usually sown with the seeds of some other plant, in October or November. The mode of culture for all the cold season crops is nearly alike. The natives seldom begin to sow till about the full moon in October, supposing that the soil possesses a pernicious quality, which burns up the young plants, till the cold season is well set in. Indeed, before that time, the quantity of moisture in the soil is too great, and

the heat of the season unfriendly to these productions; so that though the plants will come up, they are yellow and sickly, and either soon perish, or continue small, stunted, and unproductive.

Mustard seed is sown in great quantities at this season. Three kinds are usually cultivated; viz. Surshapa,* vulg. Sursha, Raya,† and Sheta Sursha.‡ The first is the most esteemed, though the other two kinds are as productive, and perhaps more so. The Sinapis dichotoma rises about two or three feet in height, flowers in the latter end of November, or the beginning of December, and is usually ripe in January. S. ramosa grows sometimes five or six feet high. It flowers in the end of December, or in January, and ripens in February. S. glauca grows two or three feet high, and ripens in February. This kind, having a strong and disagreeable smell, is less valued than the other sorts. When the crops of mustard are ripe, the plants are carefully pulled up by the hand, and carried to a place in the field, smoothed and prepared for the purpose, where it is soon after thrashed and winnowed.

Flax, though abundantly cultivated in the central parts of Bengal, for its use in making oil, is but little cultivated in this district. The natives know nothing of the use of its fibre to make thread. The oilmen usually mix the linseed with a quantity of mustard seed, to promote the expression of the oil. This so injures its quality, that Indian linseed oil is unfit for painting, or the other useful purposes to which it is applied in Europe.

[·] Sinapis dichotoma.

Many parts of this district are very proper for the cultivation of wheat and barley, notwithstanding which, very little of either is sown. The kind of wheat found in these parts is bad, the flour produced therefrom is of a very dark colour, and consequently finds no market among Europeans. The native merchants on this account make no advances for it, and this want of a market is the reason alleged why it is not cultivated to a greater extent. For the purpose of making a trial I sowed Patna wheat, on a large quantity of land, in the year 1798; the flour produced from which was of a very good quality.

Several kinds of pulse are sown at the commencement of the cold season, the principal of which are Kesari,* Mashuri,† and Bùt.‡ The seeds of the first of these kinds are sometimes scattered among the stubble of the Buna rice, and produce a good crop without further trouble, but the most usual way is to sow it on land previously well ploughed and cleansed, in the same manner as for the other cold season crops.

Tobacco is cultivated to a considerable extent on low and loamy land. The seeds are sown on a small plat or seed bed, soon after the conclusion of the rains, where they are shaded, and watered, if necessary, till they are large enough to be transplanted into the field. The land for tobacco must be well ploughed, and manured, after which the young plants are transplanted in rows, much in the manner that cabbages are planted in England, and at the same distance. The young plants require continual attention, the ground between them must be

^{*} Lathyrus sativa.

repeatedly loosened, and the earth drawn to the roots, till they have acquired a sufficient growth: they are then cut and dried for use.

The egg plant,* and several species of capsicum, are planted at the same time, and in exactly the same manner, as tobacco. The fruit of the egg plant is much used all over India, as an article of food, as is the capsicum to give a pungent taste to several Indian dishes. I have not observed that these plants are planted in this district at any time except the commencement of the cold season, and there is reason to suppose that they would not succeed if they were; though in the southern parts of Bengal, they prosper very well when planted at the commencement of the rainy season. Several other plants are cultivated as articles of food, some to a greater and others to a less extent. The cucurbitaceous plants are often sown in the fields, and the advantage of cultivating them is considerable. The sorts most cultivated are cucumbers of two sorts, the one sown in April and yielding fruit through the rainy season, and the other sown from November to February, and yielding fruit till the rainy season sets in. Karaila, t Terbúz,† Dúdh Kushí, Jhinga, Taroï, Kankrol, ** Láú, †† Kaddútt and the Konhra, or Pumpkin. \ The three last of these are suffered to run over the houses, and sometimes on a bamboo stage, and produce fruit

Solanum Melongena.

Trichosanthes anguina.

Momordica mixta.

Cucurbita pepo.

⁺ Momordica carantia.

Cucumis pentangulus.

tt Cucurbita lagenaria.

¹ Cucurbita citrullus.

Cucumis acutangulus.

tt Cucurbita alba,

sufficient for the expenditure of the cultivator, besides furnishing a large quantity for the markets.

The sweet potatoe* is planted at different seasons in different parts of Bengal, but in this district it is planted at the beginning of October. The ground is previously ploughed to as great a depth as possible, and then cuttings, taken from a small spot reserved for that purpose, are planted; these cuttings soon take root, and afterwards require no further care, till the roots are fit to be taken up, which begins to be the case at the end of December, and continues till May, during which time the produce is dug up and carried to market as it suits the convenience of the cultivator. Another variety, of a white colour, which has very little sweetness, and a small species of yam,† the root of which is about the size of a goose's egg, are cultivated in the more northern parts of the district. The cuttings of the plants of the convolvulus, and the small roots of the yam, are planted in April or May, and the produce brought to market in October or November.

Three varieties of the Arum esculentum, (Cachú of the Hindus,) are usually planted in March or April. The cultivation of these roots, occupies a considerable portion of the soil, and the produce is as important as potatoes to the people of England. The offsets from the root are planted in rows, about a foot and a half or two feet asunder, and as the plant increases in size, are earthed up as potatoes are in Europe. The periodical rains being ended, the leaves die away; after

^{*} Convolvulus batatus.

⁺ Dioscorea.

which, from November to March, the roots are taken up, and carried to market, as suits the convenience of the cultivator. These roots abound with a farinaceous substance, or rather with a viscous, starchy substance, and are esteemed very nutritive. The Mán Cachú,* and the Ol,† are cultivated in small spots. The root of the first of these is often two or three feet long, and nine inches or a foot in diameter. It is necessary to lay this root to dry for two months or more, otherwise it is too acrid to be eaten; after this it is very wholesome, though not very palatable. As all the sorts of Cachú will keep for almost any length of time, it might be worth attention as an article of provision for sea voyages.

In shady situations, where the soil is rich and loamy, ginger and turmeric flourish. The offsets are planted at the same time with, and the whole culture is exactly the same as that observed for the arum. The leaves die off, like those of arum, soon after the rains, and the roots are fit to be taken up in January. The turmeric is very deficient in colour, and the ginger less pungent, if taken up too soon. The farmers therefore let it remain in the ground till the leaves are entirely dried up. Ginger is usually sold green, and only a small proportion dried for foreign market or home consumption. After the roots of the turmeric have been well cleansed and picked, they are boiled over a fire made with the decayed leaves of the plant, (the natives supposing such a fire to have a peculiar kind of virtue,) after which they are well dried in the sun, and reduced to powder by the Pedal, or by the wooden

A. Campanulatum.

[†] Arum macrorhizon.

mortar and pestle. In this state they are usually carried to market. The roots are sold likewise before they are pulverized.

On moderately high spots, where the soil is good, the sugar-cane is planted in February and March. The spot designed for sugar-canes is usually surrounded with a ditch, the earth dug from which is heaped up round the field, in the manner of a wall, and serves to defend it from cattle. After the spot has been well ploughed, or dug up with the Kodáli, cuttings of ripe canes, consisting of about three joints, are planted somewhat slanting, in rows, about two feet, or at most three feet distance, and about a foot asunder in the rows. The fields must be often watered and cleansed from weeds. When the canes are about four feet high, they are tied in bunches, about three or four stalks forming a bunch: this permits the air to circulate among them, and facilitates their ripening. The canes, when ripe, are cut, and either carried to the mill or to the market.

The cultivation of the plantain is a profitable branch of husbandry, requiring but little labour, and making a certain return. Spots near to the habitation are chosen for this purpose, to guard against the depredations of thieves. The young plants or suckers are taken from old plantations, and planted at about six or eight feet distance each way. They may be planted at any time of the year, but May or October is usually chosen. The root is all cut off previously to planting, except a small part with a few fibres. The ground is ploughed, either before or after planting, as it suits the convenience of the farmer; and a crop of some other plant is advantageously cultivated on it, the first

year. In the second year the trees produce fruit, and continue to do so for some years; each clump will produce about two bunches in a year. It is necessary to plant a new field at the end of three or four years; because, when the clumps become large, the fruit is small, and the bunches contain a smaller number of fruit.

The Cytisus Cajan is frequently sowed round fields of sugar-canes, eggplant, and other things: this, while it makes a slight and well looking fence, is also a source of profit to the cultivator.

At present the poverty, prejudices, and indolence of the natives strongly operate against improvements in agriculture. Could an ade quate remedy be found for these evils, many other things might be cultivated with great advantage. Hemp would flourish in many spots; cotton, scarcely cultivated at all in the district, might be cultivated to a large extent; if proper methods were taken to introduce the best kinds, the culture of wheat and barley might occupy many thousands of Bighás, which now lie in an uncultivated state.* The culture of some species of Hibiscust would be profitable, and furnish one of the most durable fibres for cordage, and, perhaps for coarse cloths.

The cultivation of timber has hitherto, I believe, been wholly neglected: several sorts might be planted all over this district, and indeed

^{*} I have not observed that any of the smaller grains, such as Paspalum, Holcus, &c. are cultivated in this district: they would undoubtedly prosper in many situations.

[†] Particularly H. cannabinus, H. surattensis, and H. strictus.

all over Bengal, and would soon furnish a very large share of the timber used in the country. The Sisú,* the Andaman red-wood,† the Jaca-tree,‡ the Teak,|| the Mahogany,§ the Sattin-wood,¶ the Chakrási,** the Tuna,†† and the Sirisha,‡‡ should be principally chosen. The planting of these trees single, at the distance of a furlong from each other, would do no injury to the crops of corn, but would, by cooling the atmosphere, rather be advantageous. In many places, spots now unproductive, would be improved by clumps or small plantations of timber, under which ginger and turmeric might be cultivated to great advantage.

In some situations Sál, || Pitsál, §§ Jaral, ¶¶ and some other sorts of less note-would prosper.

Indeed the improvements that might be made in this country by the planting of timber, can scarcely be calculated. Teak, that most useful wood, is at present brought from the Burman dominions, though it would grow in any part of Bengal, and perhaps in any part of Hindostan. It appears, from the annals of the National Museum of Natural History, that the French naturalists have begun to turn their attention to the culture of this valuable tree, as an object of national

^{*} Dalbergia Sissoo.

[†] Pterocarpus Dalbergius.

¹ Artocarpus integrifolius.

^{||} Tectona grandis.

[§] Swietenia Mahogani.

[¶] Swietenia chloroxylon.

^{**} Swietenia Chukrassa.

⁺⁺ Cedrela túna.

II Mimosa Seereesa.

III Shorea robusta.

^{-§§} The genus of this tree is not yet determined.

^{¶¶} Lagerstræmia flos reginæ.

utility. This will be found impracticable in France, but may perhaps be attempted somewhere else. To England, the first commercial country in the world, its importance must be obvious, and the further encouragement * of the culture of it in this country, will eventually furnish a supply of excellent timber for ship building and various other important purposes, and obviate all apprehensions of the failure of the market where it is purchased, or of the destruction of the forests which have hitherto supplied it.

Most of the Palms, though useless as timber, deserve the attention of the agriculturist. The Sago-tree† would grow in all the high parts, and the Date-tree,‡ planted close, would greatly improve many spots now wholly unproductive. The juice of this tree is manufactured into sugar, in some parts of Bengal, and is highly valuable for that and other purposes. It is common to let a tree of this kind for two annas a year. Two hundred of these trees might be planted on a Bighá, which lets for a rupee and a half; this would be productive of a large income, after the first eight or ten years.

Few attempts have yet been made to improve orchards. The Mango, and other fruit trees, are often planted so close as to choke each other, and but little regard is paid by the planter to the quality of the fruit. Scarcely any attempt has been made to naturalize foreign fruits; even the Orange tree is almost a stranger to several parts of Bengal, though

^{*} The cultivation of Teak has been encouraged by Government.

⁺ Saguerus Rumphii.

¹ Phœnix Silvestris.

The laudable attempts made by several *Europeans* excepted, the improving of fruits, by grafting, or by raising improved varieties from seed, has scarcely been attempted. In short, the fruits of *Hindostan* are not far removed from a state of nature.

The remedy for these evils is obvious to every one, and the application of it would fully reward any person who would engage heartily in it.

In this district several obstacles to agriculture present themselves to the farmer. Large numbers of wild buffaloes and hogs infest the fields, and make it necessary for the farmer to watch his crop, from the time it appears above ground, till the harvest is gathered in: as this watching is impracticable beyond a certain extent, is attended with much danger, and often ineffectual, the cultivation carried on by an individual must be proportionably limited.

The inundations which are occasioned by the sudden overflowing of the rivers, frequently destroy the crop through a large extent of country, or so much injure it, that by this alone, the laborious husbandman is often so reduced in his circumstances, as to be unable, or so discouraged as to be afraid, to carry on the cultivation of the soil with any degree of spirit. The beasts might be destroyed, or their ravages prevented, in various ways; but it is difficult to provide sufficiently against the effects of inundations.

Perhaps the encouragement of cold season crops would be the best remedy for both: for the long grass being destroyed by the cultivation of the low lands, the wild animals would find no shelter, and indeed no sustenance, when the crop was off, which might occasion them to desert the country, and the cold season crop, though often less valuable than a crop of rice, might prove a remuneration for the labours of the cultivator, and by some improvements might be brought to such a state as to become a source of considerable profit.

Though these remarks relate chiefly to the district of *Dinajpur*, yet it is obvious that many of them will equally apply to the other parts of *Bengal*.

The improvement of live stock, and introduction of dairies, the fencing and manuring of land, the introduction of wheel carriages, and a number of improvements of a similar kind, have not been hinted at, because the present state of society seems to render them to a great degree impracticable. Yet the rapid progress of agricultural improvements in *England* encourages the hope, that a gradual improvement may also be effected in *Hindostan*.

REFERENCES TO THE FIGURES.

PLATE I.

Fig. 1 .- The Plough.

- a. The Lángala, or body of the plough.
- b. The Is', or beam.
- c. The Phála, or share.
- d. The share, fixed on the plough.
- e. The handle.

f. The Moot, or peg, to assist in holding the plough.

- a. The under edge, which rests on the neck of the bullock.
- b. b. The elevations on the upper part.
- c. c. c. c. The pins, by which it is fastened to the neck of the ox.

Fig. 3.—The Mai, or harrow. (Sans. Los'thedhana.)

Fig. 4.—The Jant, slung for raising water.

- a. The Jant.
- b. The end, excavated to a point.
- c. c. c. The bamboo to which it is slung.
- d. The bamboo, loaded at one end, to assist in raising the end b out of the water.
 - c. A man working it.
 - f. The reservoir, or channel, into which the water is thrown.

- a. Bank, or yoke.
- b. b. The Shikya, or string by which the weight is suspended.
- c. c. The receptacles, in which the earth or other substance is carried.

Fig. 6.—The Kodáli, or digging-hoe.

Fig. 7.—The Kastya, or sickle.



An Essay on the Sacred Isles in the West, with other Essays connected with that Work.

BY CAPTAIN F. WILFORD.

ESSAY V.

Origin and Decline of the Christian Religion in India.

I. IT appears, that long before Christ, a renovation of the universe was expected all over the world, with a Saviour, a King of Peace and Justice. This expectation is frequently mentioned in the Purán'as: the Earth is often complaining that she is ready to sink back into Pátâla under the accumulated load of the iniquities of mankind: the Gods also complain of the oppression of the Giants. Vishnu comforts the Earth, his consort, and the Gods, assuring them, that a Saviour would come, to redress their grievances: and put an end to the tyranny of the Daityas, or Demons. That, for this purpose, he would be incarnated in the house of a shepherd, and brought up among shepherds. The followers of Budd'ha unanimously declare, that his incarnation in the womb of a virgin was foretold several thousand years, though some say one thousand only, before it came to pass.*

A short time before the birth of Christ, not only the Jews, but

^{*} See also As. Res. vol. vi. p. 267.

the Romans, on the authority of the Sibylline books, and the decision of the sacred college of the Etrurian augurs, were all of opinion, that this momentous event was at hand. This was equally the case in the east, and a miraculous star directed the holy men, who were living in anxious expectation, where to find this heavenly child. At that time the Emperor of India, uneasy at these prophecies, which, he conceived, portended his ruin and the loss of his empire, sent emissaries to inquire whether such a child was really born, in order to destroy him: and this happened exactly the 3101st year of the Cali-yuga, which was the first year of the Christian Era. This traditionary account is known all over India; and is equally current among the learned and the ignorant. But the Hindus fancy, that these old prophecies were fulfilled in the person of CRISHNA. What induced the Brahmens to adopt this idea, is not so obvious. It is possible, however, that they saw plainly, that if they admitted these prophecies to have been fulfilled about the time of Christ, some material alteration must, of course, have taken place in their religion. The Magi of scripture, who came from the east, where equally expecting this renovation; and the star served only to guide their steps. This expectation, of a renovation of the world, prevailed also among the Gothic tribes in the north: but after waiting patiently for some time, certain enterprising men set themselves up, for the promised Manu, or new Adam; and were acknowledged as such. According to their traditionary accounts, they were nettled, and puzzled with some strange reports from the east, about the appearance of some Esir, Asa, Gods, or god-like men; and GYLFE is supposed to have been sent to inquire into the truth of these reports. His embassy is the ground work of the Edda, which concludes with these remarkable words. "The new Asæ then took to themselves the

names of the ancient ones: and gave themselves to be the real Asa, or Gods." Opin was one of them, and advancing towards the north, GYLFE surrendered his kingdom to him. In consequence of these notions of a change in this sublunary world, a new system of religion in Britain, was set up in opposition to the old one, according to the ingenious Mr. CLELAND: and this, he thinks, must have happened some time B. C. but, I think it happened later; for HENGIST and HORSA were in the tenth degree of lineal descent from this new ODIN; who, of course, was contemporary with TRENMOR, who was deified by FIN-GAL his great grandson, who appointed him an Elysium, from which the sons of the feeble were excluded, and priests also, I believe. That FINGAL and his followers held in contempt the old religion, is obvious from the ancient Galic Poems. Probably the defeat of the druids in Anglesea, for so we may call it in spite of their spells, and holy texts churned from their sacred Vedas, accelerated their ruin, and that of their religion: this, with some obscure prophecies, foretelling that a total change in civil and religious matters, was going to take place, induced many clever and enterprising persons to avail themselves of all these circumstances; and to give out, either, that they were this expected divine being, or to deify their own ancestors. Fin-GAL succeeded most completely: for, till very lately, many of the Irish, among the poorer class, believed, that the souls of the departed went into the Elysium of TRENMOR and MAC COWAL, according to the industrious inquirer J. Good, who lived above 200 years ago: and, if the Christian religion had not prevailed soon after, TRENMOR would have been considered, in time, as the supreme being. In the same manner, the Emperor Augustus was of course

consecrated a God, after his death; and, both before and after, temples were erected in his honour, and sacrifices offered to him. The courtiers of Antony, acting upon the same principles, declared, that he was Osiris redivivus, born again, and that Cleopatra was Isis. Virgil adds, that the renovation of the world, so long foretold, was going to take place, and begin with the golden age as usual: then the Argonauts, in due time, with the Argo, would reappear: and that there would be another Typhis, a Trojan war again, in which Achilles would signalize himself.

The Hindu traditions, concerning this wonderful child, are collected in a treatise called the Vicramacharitra, or history of Vicramacharitra. This I have not been able to procure, though many learned Pandits have repeated to me, by heart, whole pages from them. Yet I was unwilling to make use of these traditions, till I found them in the large extracts made by the ingenious and indefatigable Major C. Mackenzie of the Madras establishment, and by him communicated to the Asiatick Society.

When I mentioned the Sibylline verses, I by no means intended the spurious ones, which are deservedly rejected by the learned: but the genuine ones, such as they existed in the time of Virgil; whose testimony is unquestionable, and incontrovertible. Whether these prophecies were really written by inspired women, is not now the question: they were certainly current all over the west, and this is enough for my purpose. There were several of them, and the most ancient were from the east. There was a Persian, a Chaldean, an Egyptian, and also, according to Pausanias and Elian, a Iudaia, or Jewish Sibyl from Palestine. Such women probably

never existed: but the prophetical verses, that were attributed to them, were extracted from the sacred records of their respective countries. The fourth ecloque of Virgil is entirely on the subject of this long expected renovation of the world.

The last great age, foretold by sacred rhymes,

(In the original it is, foretold by the CUMEAN SIBYL.)

Renews its finished course: Saturnian times Roll round again, and mighty years; begun From their first orb, in radiant circles run. The base degenerate iron offspring, (or the Cali-yuga) ends, A golden progeny (of the Crita, or golden age) from heaven descends: O chaste LUCINA, speed the mother's pains: And haste the glorious birth; thy own APOLLO reigns! The lovely boy, with his auspicious face! The son shall lead the life of gods, and be By gods and heroes seen, and gods and heroes see. Another TYPHIS shall new seas explore, Another Argo land the chiefs upon the Iberian shore; Another HELEN other wars create. And great ACHILLES urge the Trojan fate. O of celestial seed! O foster son of Jove! See, labouring nature calls thee to sustain The nodding frame of heaven, and earth, and main: See to their base restored, earth, seas and air. .

These are the very words of VISHNU to the Earth, when complaining to him and begging for redress.

It is obvious, that Virgil considered the momentous events of the *Trojan* war, the expedition of Jason in the *Argo*, and the rape of Helen of Lacshmi, as the necessary concomitants of a renovation of the world.

The Cali-yuga, according to VIRGIL, ended a little before CHRIST, of whom he had no knowledge: and according to HESIOD, and the Jainas in India, the Cali-yuga began about 1000 years B. C. and lasted, of course, the same number of years, which were natural ones in the west, but are considered as divine years in India.

About 60 years before the birth of Christ, the capital of the Roman Empire was alarmed by prodigies, and also by ancient prophecies, announcing, that an emanation of the deity was to be born about that time, and that a renovation of the world was to take place. In the year of Rome 690 and 63 B. C. the Senate, having been convened on the ninth day before the calends of October, or the 23d of September, in order to prepare against imminent dangers threatening the Empire, the whole city was alarmed by new causes of anxiety. P. NIGID. FIGULUS, the intimate friend of CICERO, who was then consul, having heard C. Oc-TAVIUS apologising to the Senate for his coming so late, on account of his wife having been just brought to bed, exclaimed, you have then begot a lord and master unto us. This Figurus was in such estimation at Rome, that he was reckoned among the most learned men: and such was his superior knowledge of the mathematics, and other sciences grounded upon them, that he was believed to deal in the occult sciences. That exclamation of his threw so much more terror into the minds of the Conscript Fathers, as for a few months before, it was constantly reported, that nature was bringing forth a king unto the world, and it was said, that the same was asserted in the Sibylline verses. Besides, oracles to that purport were constantly brought in from the most distant parts of the world. On this account, and more particularly on account of a prodigy that had just happened at Rome, the Senate terrified, issued a

decree, that no father, during the course of that year, should presume to lift up from the ground, or bring up a new-born male child. However, those among the Conscript Fathers, whose wives were with child, had the decree suppressed: and these prophecies and prodigies were afterwards applied to Augustus, who was born during the consulate of M. Tullius Cicero*, sixty-three years before Christ; but fifty-six according to several writers in the east, such as the author of the Lebtarikh and others. Hence it is, that Nicolo de Conti, who was in Bengal, and other parts of India in the fifteenth century, insists that Vicrama'ditya was the same with Augustus, and that his period was reckoned from the birth of that Emperor, fifty-six years B. C.

In the year 119 B. C. in the time of Marius, such direful prodigies appeared, that the sacred college of Heteuria, on being consulted, declared that the eighth revolution of the world was at an end: and that another, either for the better, or the worse, was going to take place†: and Juvenal, who lived in the first century, declares that he lived in this ninth revolution, which was then going on‡: for the Etruscans reckoned twelve of these revolutions, each of one thousand years, according to some: but according to others, these twelve revolutions constituted what they called the great year.

^{*} See Supplement to Tit. Liv. cii. Decad. c. 39.

[†] PLUTARCH in SYLLAM, p. 456.

I JUVENAL, Satyr. xiii. v. 28.

It may be asked, what prophecies are to be found in the Purán'as concerning this Saviour and avenger. I observed before, that the Hindus would have it, that these prophecies were fulfilled long before, in the person of Crishna. In this, they were wiser than the Jews, who, by insisting that the Messiah is not yet come, have plunged themselves into inextricable difficulties, and have been forced, at last, to give up any further inquiry into the time of his appearance. In this manner, many of the Samaritans, in order to elude the prophecies concerning Christ, insist that they were fulfilled in the person of Joshua, whose name is the same with Jesus, and who, according to the Hebrew text, was contemporary with Crishna; and they have also a book of the wars of Joshua with Scaubec*, which may be called their Maha'-bha'rat.

When I said, that the *Hindus* conceived, that the prophecies concerning a Saviour of the world, were fulfilled in the person of Crishna, I do by no means wish to convey an idea, that he was Christ, from whom he is as distinct a character, and person, as Joshua; and whose name, with the general outline of his history, existed long before Christ. "Yet the prolix accounts of his life," to use the words of Sir W. Jones, "are filled with narratives of a most extraordinary kind, and most strangely variegated. This incarnate deity of Sanscrit romance, was not only cradled, but educated among shepherds; a tyrant at the time of his birth, ordered all the male infants to be slain. He performed amazing, but ridiculous miracles, and

Reland de Samarit. p. 15, &c.

saved multitudes, partly by his miraculous powers, and partly by his arms: and raised the dead, by descending for that purpose into the infernal regions. He was the meekest and best tempered of beings, washed the feet of the Bráhmens, and preached, indeed sublimely, but always in their favour. He was pure and chaste in reality, but exhibited every appearance of libertinism; lastly, he was benevolent and tender, and yet fomented and conducted a terrible war." The Yadus, his own tribe, and nation, were doomed to destruction for their sins, like the descendants of YAHUDA or YUDA, which is the true pronunciation of JUDA. They all fell, in general, by mutual wounds, a few excepted, who led through Jambu-dwipa a miserable and wretched life. There are some to be found in Gurjarat': but they are represented to me as poor and wretched. "This motley story must induce an opinion,* that the spurious gospels, which abounded in the first ages of christianity, had been brought to India, and the wildest parts of them ingrafted upon the old fable of CRISHNA." Several learned missionaries are also of that opinion, though they carry the comparison too far. The real name of CRISHNA was CANEYA, and he was surnamed CRISHNA, or the black, on account of his complexion.

The Hindus, having once fixed the accomplishment of these prophecies to a period greatly anterior to the Christian Era, every thing in their books was either framed, or new modelled accordingly; and particularly in the Puránias, every one of which is greatly posterior to our era: though many legends, and the materials in general, certainly existed before, in some other shape.

^{*} As. Res. vol. 1. p. 2, 3.

Yet, as inconsistency and contradiction are the concomitants of falsehood and deceit, it may be supposed, that some circumstances and particulars, tending to remove the veil they have attempted to throw over these events, may have escaped them. This is very probable; but as I never had the most distant idea of ever investigating this subject, till very lately, I may probably have overlocked many passages of this nature; and I recollect now only two material ones, which I mentioned before. These prophecies, in the Purán'as, concerning this Saviour, declare, that he was to appear in the latter end of the third, and in the beginning of the fourth age: which can, by no means, be reconciled to the Christian Era, according to their mode of reckoning. The two passages, alluded to, are to be found in the Padma and Gan'es'apurán'as. In the first, BALI, an antediluvian, and in the fifth generation from the creation, is introduced requesting the God of Gods, or VISHNU, to allow him to die by his hand, that he might go into his paradise in the White Island. VISHNU told him, it was a favor not easily obtained; that he would, however, grant his request: but, says VISHNU, you cannot come into my paradise now; but you must wait, till I become incarnate in the shape of a boar, in order to make the world undergo a total renovation, to establish, and secure it upon a most firm and permanent footing: and you must wait a whole Yuga, till this takes place, and then you will accompany me into my paradise. A whole Yuga, or Mahá-yuga, consists of 4,320,000 divine, or more probably 4,320 natural years.* These, reckoned from the fifth ante-

^{*} These are a component part of the great year, or period of 12,000 years, used both in the east, and in the west, and also in *Persia*. In *India* they say these are divine years; but in *Etruria* and *Persia*, they insisted, that these were only natural years.

diluvian generation, will fall in, very nearly, with the beginning of the Christian Era, according to the Septuagint, and Josephus's computation. As to the number of years, they are written 5,000 in round numbers in the Gan'es'a-purán'a: and, as these 5,000 years are not said to be divine ones, we have a right to suppose, that they were meant originally for natural years. Gane's'a, who is identified with Vishnu, and has also an inferior paradise in the White Island, and another in the Euxine or Icshu Sea, thus says to a King of Cás'i or Benares, an antediluvian, and who, like Bali, wished much to be admitted into his elysium: "you cannot now enter my paradise in the White Island; you must wait 5,000 years," when, it seems, it was to be opened. "But in the mean time, you may reside in my other paradise in the Euxine Sea." In the same manner Achilles, with Castor and Pollux, and I believe Cadmus, Peleus, &c. after residing a long time in the White Island in the Icshu Sea, were ultimately translated into the original White Island in the White Sea.

The White Island in the Euxine or Icshu Sea, has much affinity with the Limbus Patrum, or paradise of departed ancestors, who waited there for the coming of Christ, who was to open the celestial, and real paradise, for their reception.

Divines in *India* declare, that the surest proof of the divine mission of an *Avatára* is his coming being foretold: that prophecies concerning a Saviour are often repeated in them, some very plain, and others rather obscure: that they are, in short, one of the fundamental supports of their religion and creed. That CRISHNA is considered as the first, in dignity and principal incarnation; and that the others are greatly inferior to this, and merely intro-

duced to bring on the grand system of regeneration. In his time, the divine oracles were committed to writing, with a more complete and perfect system of moral duties, and religious worship: and a race of Bra'hmens more pure, more enlightened, was introduced into India. Crishna is the last Avatára, or manifestation of the deity, but one; which, according to their sacred books and ours, will appear a little before the general dissolution of the world.

But let us return to the manifestation of VISHNU in the shape of a Boar, mentioned in the former passage. This manifestation is acknowledged to be that of the White Boar: for according to the Tapic'hand'a, a section of the Scanda-purán'a, the Calpa of the Boar consists of four inferior ones, denominated from four manifestations of the great Boar. The first subordinate Calpa is that of the Curma-Varáha, or Tortoise-boar, this is the Curma-Avatára: the second was that of Adi-Varáha, called Adi-nátha also, particularly by the Jainas: this is the Varâha Avatâra: the third is, that of Varáha, with the title of CRISHNA: and the fourth, and present Calpa, is that of the White Boar, and which is very little noticed in the Purán as. In the Prabhása-c'hand'a, a section of the Scand'a-purán'a also, these four Calpas have different names; and to them three more are added, making in all seven Calpas: and we are now in the seventh. These are the Calpas of VISHNU, under the seven different denominations of S'RIYA-VRATTA, V'AMANA, contemporary with Bali, Vajra'nga, Camala'-Prabhu (Camulus Deus). SWAHARTA, PURUSHOTTAMA, and the seventh, DAITYA-SUDANA. In the fourth Calpa of CAMALA-PRABHU, 'and which is called also the Calpa of VARA'HA,' says the author, 'was born Icshwa'cu the son of Noah. in the Tréta' or second age: and the four last Calpas answer to the four

Calpas of the Boar, the last of which is that of DAITYA-SUDANA, thus called from VISHNU, completely overthrowing the empire of the Daityas or Demons. These four Calpas are obviously to be reckoned from the flood. The Calpa of Purushottama, answers to that of Crishna; whose birth was followed by a general massacre of all the male children, through the whole country, by Cansa, in order to destroy him. But let us return to this wonderful child, who was to manifest himself to the world, when 3100 years of the Cali-yuga were elapsed, that is to say in the 3101, answering to the first year of the Christian Era, according to the Cumáricác hand'a, and the Vicrama-Charitra. According to the same respectable authority, the purpose of his mission, was to remove from the world wretchedness and misery: and his name was to be 'Saca, or the mighty and glorious King.

'SA'LIVA'HANA was the son of a Tacshaca, or carpenter; and was born, and brought up in the house of a pot-maker. God is called Deva-Tasht'a, or God the artist or creator, in Sanscrit; and also Deva-Tasht'a', from which is derived Deo-Tat or Teutat in the west, called Twasht'a or Tuisto by the German tribes. He produced Mannus, man, the first Manu, who had three sons. In Greece, according to Pindar, God the father of mankind, and creator of the world, was called πατής Αρισοτέχνης, the father and best artist. This carpenter, the father of 'Sa'liva'hana, was not a mere mortal, he was the chief of the Tacshacas, a serpentine tribe, famous in the Purán'as. There, they are declared to be the most expert artists and mechanics in the world: and they are by no means confined to a few trades; but their skill embraces every branch. When the elephant Air'avata, with his immense retinue in the same shape, came, in his way to the plains of Utara, Curu or Siberia, to worship at Prabhása in Gurjarát', they planned

and executed a road for him through the N. W.* quarter of *India*, which is said still to exist. The *Tacshacas* or *Tachas*, have, as usual, two countenances, that of serpents, and a human one, which they assume at pleasure.

The chief of them is obviously the same with the serpent AGATHO-DEMON, the Demi-urgos, Opifex, and artist of the Egyptians, Greeks, Gnostics, Basilidians, &c. These sectaries asserted, that the serpent was the father, and author of all arts and sciences: and this serpent, they said, was the Christ, who was thus the son of a carpenter and artist; and at the same time an incarnation of the great serpent, exactly like 'Sa'Liva'Hana, the 'Saca, or mighty and glorious King. 'Sa'Liva'Hana was the son, or rather an incarnation of the great serpent; and his mother was also of that tribe, and incarnate in the house of a pot-maker. She conceived at the age of one year and a half, the great serpent gently gliding over her, whilst she was asleep in her cradle.

The heresy of the *Ophites* spread widely at a very early period: they extolled the serpent, as the author of the science of good and evil.—Such was, they said, the majesty and the power of the brass serpent, exposed upon a stake in the desert, that whatever man looked up to him was immediately cured. In the same manner that the serpent had been exalted upon a stake in the desert, for the good of the people, so it was necessary that Christ should be exalted also, upon a stake or

^{*} Cumáricá-c'handa, p. 155.

cross, for the good of mankind; and, in a scriptural sense, this serpent was the type of the Saviour of the world.

The pot-maker used to make figures of clay of all sorts, to amuse his grandson, who soon learned to imitate them; but he endued them with life. His mother carried him one day to a place full of serpents, telling him, "go and play with them; they are your relations:" the child went and played with them, without fear, and without receiving the least injury. These two last particulars are never omitted by the narrators.

About that time Vicrama'dditya, the Emperor of India, was made very uneasy, by general rumours, that the old prophecies were accomplished in the person of a child born of a virgin, and who would conquer India, and all the world. He sent emissaries every where to inquire into the truth of this extraodinary event, and find out this heaven-born child. They soon returned, and informed him, that it was but too true, and that the child was then in his fifth year. Vicrama'ditya immediately raised a large army in order to destroy the child, and his adherents, in case he should have any. He advanced with all possible speed, and found the child surrounded with innumerable figures of soldiers, horses, and elephants. These the child endued with life, and attacked Vicrama'ditya, who was defeated, and left on the field of battle, mortally wounded by the hand of young Saliva'hana.* The dying monarch only begged of his conqueror, that he would allow his own period to be equally current all over India

^{*} See Asiat. Research. Vol. IX. p. 118, 120.

with his. This the child granted, and then cut off his head, which he flung into the middle of the city of Ujjayini, though at an immense distance. In the mean time Vicrama'ditya's army fell back toward Ujjayini, pursued by 'Sa'liva'hana's forces, and in their way crossed the Narmadá. There the army of 'Sa'liva'hana, consisting of soldiers of mere clay, was suddenly dissolved, and disappeared in the waters of the river. After this, we hear no more of 'Sa'liva'hana, except that he disappeared in the 79th year of the Christian Era, which is the first of his period. His name is not even mentioned in the lists, either of the Emperors of India, or of the Kings of Ujjain. Immediately after the death of Vicrama'ditya, his wife was delivered of a son, whom they wanted to crown Emperor of India, in the same manner as if 'Sa'liva'hana had never existed: but, being a posthumous child, he could not succeed to the empire; he was, however, perfectly eligible to the throne of the kingdom of Málava; and was of course immediately crowned at Ujjain.

This took place, according to the Cumáricá-o'hand'a, in the first year of the Christian Era, when Sa'liva'hana was in his fifth year; and it is remarkable, that our Saviour was equally in his fifth year at that time. The principal circumstances of this legend are taken from the Apocryphal Gospel of the infancy of Jesus, written in Greek in the third century; of which an Arabic translation, made at a very early period, is still extant. Henry Syke has given a translation of it in Latin, with some fragments still remaining of the Greek original. In these fragments it is declared, that the infant Jesus, when five years of age, amused himself with making figures of clay, which he endued with life. This idle story is mentioned also in the Korán, and is well known to Muselmans. This remarkable

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coincidence of historical facts, legendary tales, and also of times, in my humble opinion, cannot be merely accidental.

Those, who acknowledge, that there are four Vicramas, always consider Sa'liva'hana as one of them, and assert that he had of course a famous bard at his court, called Calída'sa. Thus, when called Vicrama'ditya, he always appears alone as King of Pratish'tána, and as such he is represented in the appendix to the Agni-purán'a. This is the famous King of Pratish'tána, with the title of Tri-Vicrama, or with the triple energy, as we have seen before: but his real name was Vi-Sama-Sila, or simply Sama-Sila. As Pratish'tána is acknowledged to belong exclusively to Sa'liva'hana, as Ujjayini does to Vicrama'ditya, whatever King, called Vicrama, or Vicrama'ditya, is represented as sovereign of Pratish'tána, the same is Sa'liva'hana; and, when we find a Vicrama'ditya said to have lived or reigned eighty-four years, him we must conclude to be Saliva'hana, according to the learned Pandits, and astronomers, who gave me this information.

There was a King at that time called Vicramamitra, the seventeenth from Chandragupta, according to the Bhágavat, Brahmán'da, Váyu and Vishnu-Purán'as;* and Vicramamitra or Vicramitra, as it is erroneously spelt, is synonymous with Vicrama'ditya or Vicram'arca; and that Vicramamitra was intended for Vicrama'ditya, by the compilers of the Purán'as, admits of no doubt, for they say, that his father was

^{*} Sections on Futurity.

GHOSHA-RAJA, who was the same with GANDHARUPA, as we have seen before.

SA'LIVA'HANA is considered under three different points of view, according to the three different objects and purposes of his mission; and accordingly he is said to be either an incarnation of BRAHMA', of SIVA, or of VISHNU. He is sometimes considered as conjointly possessing these three powers, and he is then said to be TRI-VICRAMA.

When the object of his mission is declared to be to destroy the kingdom, and power, of the *Daityas* or demons, he is then said to be an incarnation of Siva; as in the legends of Sama-Sila King of *Pratish-'tána*.

In consequence of this destruction, a regeneration takes place, as attested in the legends of the good Mandantelled Sulastha, or he who was crucified. Sa'liva'hana is then said to be an incarnation of Brahma': and this is the general opinion of the inhabitants of the Dekhin, according to A. Roger, and others.

But, when considered independently of these two energies, meek and benevolent, doing good to all mankind, he is then VISHNU, and this is the opinion of the 'SA'LIVA'NSAS in the provinces of *Benares* and *Oude*.

Thus we see, that 'SA'LIVA'HANA goes through the TRIMURTTI; and when these three energies are considered as united in him, he is then VI-SAMA-SILA-TRI-VICRAMA King of *Pratish'tána*, called also 'Saileyád'hára, or simply 'Saileyam, in a derivative form.

PRATISH'TA'NA is the usual *Sanscrit* expression for any consecrated place or spot, and it implies here, the holy and consecrated city, and is synonimous with the *Bet-al-Kaddes*, and *Bet-al-Mokaddes* of the *Mussel-mans*.

Saileya-D'ha'ra' another name for it, is mentioned in the beginning of the Jyotirvidábharana an astronomical treatise, in which the author, giving an account of the six 'Sacas, says that 'Sa'liva'han'a would appear at 'Saileya-d'hárá, or the city firmly seated upon a rock, which compound alludes to the city of Sion, whose foundations are upon the holy hills, "the city of our God, even upon his holy hill." 'Saileyam would be a very appropriate name, for it is also, in a derivative form from 'Saila, and is really the same with 'Saileya-'dhàrá: and the whole is not improbably borrowed from the Arabic Dâr-al-Sálam, or Dar-es-Sálem, the house of peace, and the name of the celestial Jerusalem, in allusion to the Hebrew name of the terrestrial one. The Sanscrit names of this city of the King of 'Sai leyam, or 'Sálem imply its being a most holy place, and consecrated apart, and that it is firmly seated upon a stony hill.

I mentioned, in the preceding essay, that 'SA'LIVA'HANA was also called SAMUDRA-PA'LA, that is to say, fostered by, or the son of, the ocean. This implies, that either he, or his disciples, came by sea; and this notion has a strong resemblance with a passage from the second book of Esdras, in which Christian represented, as ascending from the sea, firmly seated upon a rock. This christian romance is of great antiquity, for it is mentioned by IRENÆUS, CLEMENS of Alexandria and TERTULLIAN, who considered it as a book of some antiquity, and almost canonical.

ALL these sacred, and most expressive epithets, the Hindus have ap-

plied to an ancient city in India now called Pattana, on the banks of the Godáverí: but with what propriety, will appear hereafter. Be this as it may, whether in India or out of it, there at 'Saileyam, 'SA'LIVA'HANA was to be born, of a virgin, one year and a half old: his father was to be the great Tacshaca or carpenter, and himself was to live in the humble cottage of a pot-maker. This legend is some what differently told by others, as we have seen in our account of Vicrama'ditya. His mother was a married woman; but her husband, a Bráhmen, died, whilst she was still very young. She conceived by the great Tacshaca, carpenter or artist, and when her pregnancy became obvious, her two brothers, ashamed of her seemingly unwarrantable behaviour, left Pratish'tána, and the unfortunate young woman, thus unprotected, found an asylum in the humble cottage of a pot-maker: and, in the VICRAMA-CHARITRA, she is said to be his daughter; whilst according to another legend, 'SIVA was incarnated in the womb of the wife of King Sura-Mahendra'ditya-Bhu'-Pati, and there was born, under the name of SAMA-SILA-TRI-VICRAMA, or with the triple energy.

It is declared in the Vicrama-charitra, that the birth of this divine child, from a virgin, had been foretold one thousand years before it happened, nay some say two thousand. That a Saviour was expected with a regeneration of the universe, all over the more civilised parts of the world, in consequence of certain old prophecies, cannot be denied, at least in my humble opinion. It was firmly believed in the west: it was so in the east; and in the intermediate countries among the *Hebrews*, it was a fundamental tenet of their religion. Whether this notion was borrowed from the *Jews* or not, is immaterial to the present subject. It is by no means necessary to have recourse to this expedient, in order to account for this

once prevailing opinion, and I am rather inclined to think, that this was not the case.

The time of his birth is thus ascertained from the Cumurica-c'han'da, a section of the Scanda-purána,* in which we read, Tatah trishu sahasréshu s'até chápyadhicéshu cha; 'SACA námá bhavishyas'cha yótidá ridra háraca. "When three thousand and one hundred years of the Cáli-yuga are elapsed, then 'SACA will appear and remove wretchedness and misery from the world." But it is necessary to observe here, that this is the first year of his reign, and that it has nothing to do with the first of his era. In the same manner, the author of that section says, that the first year of Vicra-MA'DITYA's reign answered to the 3021 of the Cali-yuga, which date is equally unconnected with the first year of his era. In the appendix to the Agni-purán'a, we find that 'Sa'liva'hana began his reign 312 years after the death of Cha'n'acya, and Chandragupta, which places it also in the first year of our era. It is remarkable however, that in the appendix to the Agni-purána, and the copy from it in the Ayin-Acberi, the years are computed, or reckoned, from the first of 'Sa'liva'hana's reign, answering to the first of Christ, but not from the first of the former's era.

SA'LIVA'HANA died in the year of our era 79, and he lived eighty-four years. According to the Vicrama-charitra, he was in the fifth year of his age, when he manifested himself to the world, and defeated Vicrama'ditya. This places his manifestation in the first of the Christian

Paragraph 42.

Era, when Christ was also in his fifth year and in the latter end of it, for he was really born four years before the beginning of our era.

This places, also, the accomplishment of the old prophecies, Vicramay'ritya's inquiries after this divine child, born of a virgin, exactly in the first year of our era. For, a thousand years before that event, the goddess C'alí had foretold him, that he would reign, or rather his posterity, according to several learned commentators in the *Dekhin*, as mentioned by Major Mackenzie, till a divine child, born of a virgin, should put an end, both to his life and kingdom, or to his dynasty, nearly in the words of Jacob* foretelling to Judah, that the sceptre should not depart from him, or his Dynasty, until Shiloh came, 'Sa'liva'hana or King 'Sa'la.

As to his character, it is declared in the Cumáricá-c'han'da, as we have seen before, that he would come for the purpose of removing wretchedness, and misery, from the world.

In the appendix to the Agni-purâna, it is declared that in the holy and consecrated city of Pratish'tána, firmly seated upon a rock, called Saileya-d'hârá or 'Saileyam, through the mercy of 'SIVA, would appear SA'LIVA'HANA, great and mighty, the spirit of righteousness and justice, whose words would be truth itself, free from spite and envy, and whose empire would extend all over the world (or in other words, that the

Genesis, chap. 49. v. 10.

people would be gathered unto him) the conveyor of souls to places of eternal bliss. On account of this benevolent disposition, he is compared in the Vansávali to Dhananjana or Arjjuna, whose character is so well delineated in the inscription on a pillar at Buddál. He did not exult over the ignorant and ill favoured: he neither vainly accepted adulation, nor uttered honey words, and was the wonder of all good men. His wonderful equanimity on all occasions, and with regard to every one, of whatever rank in life, and whatever might be their natural faculties, and mental dispositions, are implied by the epithet of V1-Sama-Sila bestowed upon him.

His conception was miraculous, and in the womb of a virgin: he was the son of the great artist, and the virtue of his mother was at first suspected: but choirs of angels came down to worship her. His birth was equally wonderful: choirs of angels with the celestial minstrelsy attended on the occasion, showers of flowers fell from on high. The King of the country, hearing of these prodigies, was alarmed, and sought in vain to destroy him. He is made absolute master of the three worlds, heaven, earth and hell: good and bad spirits acknowledge him for their lord and master. He used to play with snakes, and tread upon the adder, without receiving the least injury from them: he soon surpassed his teachers; and, when five years of years of age, he stood before a most respectable assembly of the doctors of the land, and explained several difficult cases, to their admiration, and utmost astonishment; and his words were like ambrosia.

In the copies of the Vansávali, current through the western parts of

India, he is constantly called Samudra-Pa'la; because either he, or some of his disciples, came by sea; and he is of course the same with the Mléchhávatára, or incarnation of the deity among foreign tribes, mentioned in several astronomical tracts; and he is mentioned, in that character, in the section erroneously attributed to the Bhavishya. There he is declared to be Ru'made's'a'dhipati-Sace's'wara, the lord and master of the empire of Rome; and the author of the sacred period current through that vast empire; and which, according to the appendix to the Agni-purán'a, began to prevail over that of Vicrama'ditya in the year 676 of our era. We have seen before, that he was born for the purpose of removing misery from the world, and to check the power of the demons; and, at the earnest intreaties of the subaltern deities on earth, and all good men, who were groaning under their tyranny, Siva comforted them, and assured them, that after a certain time, he would be incarnated in the character of Vi-Sama-Sila, with the title of Trí-Vicrama, or with the triple energy.

The occasion of his being born, is declared also in the Vrihât-cat'hâ. The gods, being vexed by the wicked, went to Maha-de'va, and said, "you and Vishnu, have destroyed the Asuras or Demons, but they are born again as Mlech'has, who constantly vex us and the Brâhmens. They will not allow sacrifices to be performed, but destroy the implements and holy utensils: they even carry away the daughters of the Munis." Maha'-de'va promised relief, and caused one of his forms, or emanations, called Ma'lyava'na, to be incarnated, saying to him, "go and destroy the wicked: all the world will submit to thy power, as well as good and wicked

spirits." Then Maha'de'va appeared to the father, informing him, that his wife would conceive, and the fruit of her womb be an incarnation of the deity: and he directed that his name should be Vicrama. When his mother had conceived, she became resplendent like the morning sun; and this resplendence answers to the Núr of the Muslemans, from which Issa proceeded. Immediately all the heavenly spirits came down to bow to her, and worship her. When the child was born, the celestial music was heard, and a shower of flowers took place. The high priest, who was childless, obtained also a son, as well as the prime minister.

In the legends relating to 'SA'LIVA'HANA, it is in general asserted, that his mother being found with child, her character suffered so much, that her two brothers, through shame, left their native country.

In the present legend, SA'LIVA'HANA, under the name of VI-SAMA-SI-LA with the triple energy, is represented as the son of a King, and as residing at Pratisht'ána, the consecrated city, or Saileyam. We are then informed, that young VI-SAMA-SILA made a surprising progress in learning, and soon surpassed his teachers. His father then resigned the kingdom to him, and SAMA-SILA became king of heaven, earth and hell; all spirits, good and bad, obeyed his orders; his resplendence was like that of the sun, and his fame reached the White Island in the IVhite Sea. The scene is then transferred to Ujjain, where he appears like Vicrama'ditya: then follows a minute account of his wars; but even then, there is no mention made of his wars with Sa'liva'hana, for a very obvious reason, though in the latter part the story is somewhat misrepresented.

Let us now consider Sama-Sila or Sa'la-va'hana, an incarnation of the great Tacshaca, in the humble cottage of a pot-maker in the skirts of Saileyam, or the consecrated city, as related above.*

Though without teachers in that humble station, he surpassed all the learned in knowledge and wisdom; and I have already mentioned the famous will, which puzzled all the princes and learned men of the country, till a solution of the mystery was given by 'Sa'liva'hana, who was then in the fifth year of his age.†

There is a curious account of Sa'livahana, and of his crucifixion, in the Rája Tarangin'i, or history of Casmir. There we read, that 145 years after the accession of Vicrama'ditya to the throne, there appeared King Arya, who was before prime minister of King Jaya-Indra, and whose name signifies the lord of victory, or of victorious hosts. It was decreed, that he should be wretched, and persecuted all his life time, and ultimately that he should die upon a cross; that he would be brought to life again, through the assistance of a Phan'i-Canyá, or damsel of the Serpentine tribe; and then would become a great and powerful monarch. The King, having been circumvented by his enemies, threw into a loathsome dungeon Sandhi-Mati, for such was the name of his prime minister. But his enemies were not satisfied, and they informed the King, that Sarasva'tí, divine

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[†] As. Res. vol. ix. p. 128.

wisdom, or collectively those endued with divine knowledge, had declared that he would be a King. JAYA-INDRA, called CHANDRA in the Ayin-Acberi, ordered him immediately to be crucified. There he remained, till his flesh dropped off, or was torn off by wild beasts. A certain holy man happened to pass by, and reading his destiny in the Brahmanda, or in his scull, immediately resolved to bring him to life again. For this purpose he performed the pújá, and after the usual ceremonies and invocations, he rung the bell, and was surrounded by a fiery meteor, which announced the presence of the Yoginis, or forms of De'vi. Then, arming himself with a scimitar, as usual on such appearances, he went to the forest, where the prime minister hung upon the cross. He was immediately surrounded by Yóginis, one of whom, the Phani-canyá I mentioned before, arranged the bones together, and SANDHI-MATI stood upon his legs. The King, hearing of this, went to the forest, when all the Yoginis disappeared: this resurrection of Sandhi-Mati took place in Muni-puri, or the city of holy contemplators. He then ascended the throne, and, on account of his transcendent virtues, was called 'ARYYA-RA'JA, or the good King. in water in the court of the lecount

The author gives us then an account of his excellencies, and of his worth; and informs us that he was a servant and favourite of Maha'de'va. The ways of the supreme being, says he, are wonderful, and truly pass all understanding and belief; yet there are similar instances recorded of old, such as in the case of Paricshita; &c.* The difference between the two eras of

^{*} See Raja Tarangini, and the extract from it in the Ayin Acberi, history of the Kings of Cashmir.

VICRAMA'DITYA and 'SALIVA'HANA', is made here to be 145 years, according to the computation used all over the *Dekhin*: for in the northern parts of *India*, they reckon only 135.

King Aryya is the same with the Pra-Aryya-s'ira of the followers of Gautama in Siam, and other countries to the eastward of it. This signifies the mighty and venerable Sire, or chief of the Aryyas or Christians: and with him Budd'ha waged war, as well as with his disciple Praswana, thus called because he loudly preached against the doctrine of Budd'ha. The Aryya-Ra'ja is also the same with De'ya-Twash'ta' or De'ya-Ta't, who was crucified by order of Budd'ha. King Aryya was succeeded in the throne by Gópa'ditya, the grandson of king Yudhishthra, the immediate predecessor of Preta'pa'ditya, who brought Vitcrama'ditya from distant regions to Cas'm'r, and made him King of that country. Preta'pa'ditya, and Vicrama'ditya are epithets synonymous, or very nearly so.

Many learned Hindus, for several centuries past, conceive that the eldest Vicrama'ditya was far from being contemporary with Sa'liva'hana; and of course conclude, that he is not the famous Sacadwishi or Saca'ri, that is to say the enemy of 'Sa'liva'hana; and consequently they suppose, that Saca'ri must have been the epithet of some more modern Vicrama'ditya. This notion is countenanced certainly in several of the lists, which I have produced; and the author of the Rúja-Tarangin'i acknowledges, that it was the opinion of many; and though he does not countenance it,

a comment of the second

shews plainly, that in his time it was by no means a new idea.* The compiler of the Vansavali seems willing to adopt it, when he says that many learned men reject the whole, as altogether fabulous, and unwarrantable. Their reason, I am told is, that 'SACA is the MLE'CH'HA'VATA'RA, who did not appear, or rather whose period was not known in India, till about 1200 years ago. In conformity to this idea, in the section attributed to the Bhavishya-Purán'a, 'SACA is declared to be the lord and master of Rome, which is to be taken in a spiritual sense: and in the Agni-purán'a, the introduction of his period into India is made to correspond with the year 676 of Christ.

This Mléch'hávatára, or incarnation of the deity among foreign tribes, is peculiarly noticed in the Rómaca-Siddhánta, an astronomical treatise, according to the system of the Rómacas, or Romans, called Romaicoi (Paradicoi) by the Greeks. This treatise is said to be very voluminous, and is so scarce, that I have not been able to procure it; and I believe it is not to be found at Benares. This deficiency I have been able to supply from the Súryáruna-samváda, the Sidd'hánta-Rája, and the Súrya-Sidd'hánta. The sun, having been appointed by Brahmá, to be the eye witness of all transactions in this world, and to regulate the hours and time, refused to obey, and withdrew into the desert, to perform tapasya, in order to be reunited to the Supreme Being. In consequence of this refusal, he was cursed by Puru'hu'ta, or Indra, and Viranchi, or Brahma. In the Súrya-Siddhán-

^{*} SACA'RI Vicramáditya iti sabhramamás'ritaih, anyair atrányathá lec'hivis'amvádi cadarthitam.

ta, it is said, that Maya, the chief engineer of the Daityas, and the son of Twash'ta', made tapasya in honour of the sun, in order to obtain astronomical knowledge; the sun appeared to him, and said, "I know the rectitude of thy heart, and I am much pleased with thy tapasya. I shall therefore impart unto thee the doctrine of Time, and of the revolutions of the planets. But as no body can bear my refulgence, and as it is not in my power to stop my course, for a single moment (for this reason go back to thy own puri, town, or place of abode, and there I shall impart unto thee knowledge, in the town of Rómaca, where I shall become the Mlecchha-vata'ra, through the curse of Brahma'). This form of mine, here present, will teach thee every thing: "then the sun, having directed this new form to teach him, disappeared, and Maya bowed himself to the ground before this emanation.

The sloca between the two brackets is not found in general in the copies of the Súrya-siddhánta; yet without it there seems to be something wanting: but whether an interpolation or not, its purport is established in the following astronomical treatises. In the beginning of the Sidd'hánta-Rája, the author says, from history (Itihása) I know, that Bha'scara-Su'ra became a Rómaca, through the curse of Puru'hu'ta and Viranchi. He became a Yavana in Rómaca-pattana, and in the garb and countenance of a Rómaca, he composed a most complete treatise on astronomy.

In the beginning of the Súryárun'a-samváda, the sun is introduced, saying, "I gave the Rómaca-Sidd'hanta to Rómaca, whilst living among the Yavanas, in consequence of BRAHMA's curse. Rómaca taught it

Rômacá-nagaré in the town of Rome, for he dwelt among the Mléch'has in consequence of that curse;" Rômaca-purî is the town of Rome in the west. "Then," says Arun'a, "how came you to assume the countenance of a Mléch'ha in the west, in a land of unrighteousness." "Brahma' cursed me," answered the sun, "and said be thou born in the west, in Rômaca-pura, and of the Mléch'has, who are ignorant of the Védas, of the Yajna, or of the proper mode of performing sacrifices, Carma, religious rites and discipline; who have rejected sarvadharma, all religious duties, are dush'ta, inclined to evil, nástica, heretics; and who (the Romans) are a Yavana tribe, guilty of every sort of uncleanliness. Thus, in that shape, I taught them astronomy."

This Mle'ch'ha'vata'ra, or superior incarnation* of the deity among foreign tribes, Ruma-de's'a-path the lord of the country or empire of Roum, or Rome, (because his doctrine, institutes, and laws prevail through it;) Rómaca-nagaré, said to reside in Rome its metropolis, (because he is revered and worshipped there with unusual magnificence;) 'Saces'wara the lord of a sacred period, (or as I think it should be understood, after whom it is denominated,) is obviously Jesus Christ; at least it appears so to me. From his being a 'Saces'wara, the Hindus suppose him also to be a great astronomer. In the Súrya-Siddhánta, he is repeatedly called 'Srí-Su'rya'nsa, or the blessed Su'rya'nsa; he is also styled Rómaca-Avata'ra, or simply Rómaca. In consequence of this, 'Sa'liva'hana is considered all over India as a great astronomer, or as a prince remarkably fond of astronomy.†

[•] Inferior incarnations are denominated Avantara.

[†] See also Mr. GENTIL's Voyage, p. 214 and 238.

Various are the opinions about 'SA'LIVA'HANA: in general it is believed, that he did not die, but was translated to heaven, being a 'SACA; after having retired, for many years, into the desert, to give himself up to heavenly contemplation.

I have mentioned, that the *Hindus* represented 'Sa'liva'hana in his fifth year, exactly like our Saviour in the first year of the *Christian Era*: it was not in consequence of deep chronological investigations, that they seemingly attempted to correct the mistake of Dionysius Exiguus, or the little; but because it was so in the Apocryphal Gospel of the infancy of Jesus, or rather because it was the general opinion in the east, that Jesus manifested himself to the world at that age. 'Sa'liva'hana did not marry, nor had he any offspring: for even in *India*, he is looked upon as a mysterious, and supernatural being, and called an *Utpáta*, or prodigy.

I have thus arranged and brought together all the information I could procure, concerning 'Sa'liva'hana, under that name, or any of his well known titles, and as King of Pratish'tána: for 'Sa'liva'hana and that holy eity are intimately related to each other, and cannot be separated. Yet we find 'Saliva'hana sometimes leaving Pratish'tána, and going to reside at Ujjain, after the defeat of Vicrama'ditya; as in the legends relating to him, under the names of Vi-Sama-Sila, and Dhananjaya. It is nearly the same with Vicrama'ditya, whose history is equally connected with Ujjihán, or Ujjayini; I mean the real one, for there were several of them.

There are many other legends, concerning a certain holy man, who

seems to be meant for 'SA'LIVA'HANA; but as the application is not so obvious, they will be inserted in a distinct place by themselves.

The followers of Budd'ha and Jina, as well as the followers of Brahma', claim 'Sa'liva'hana as their own; and in the Calpa-sutra-Calicá, 'Sa'liva'hana, as his name is generally written, is said to be a form of Jina, with the title of 'Sa'baca-pati, or 'Sra'baca-pati. The followers of Gautama, the Bódhi-Swata in Siam, and the Burman Empire, called him De'va-Tat, which is a corruption from Deva-Tasht'a' or De'va-Twasht'a', the divine artist, or Tacshaca: and that it is so, is asserted from the Buddha-charitra in my possession, wherein he is called Vis'vacarma. They say, thas he was a collateral form, or the brother of Budd'ha, and they are fully persuaded, that he is the same with Christ. Their being made contemporaries, shews that through this whole romance, there is an obvious allusion to the wars and feuds between their followers in subsequent ages.

This singular mode of treating historical events, is not peculiar to the Hindus; for the Greeks seldom distinguished between the tutelar deities, and their disciples, associates or followers, who were called by their titles. These tutelar deities were supposed to lead their armies in an invisible manner, though they sometimes appeared, and victory was always ascribed to them. Thus the wars of the Muhamedans with the Spaniards, might be ascribed to Muhamed, and St. Jago the champion of Spain, who led constantly her armies, and destroyed very many Moors: hence he is called St.

JAGO MATA MOROS. DIODORUS, the Sicilian, says the same of Alex-Ander the son of Jupiter;* and, though dead, he was supposed to be at the head of the armies, and to regulate the conduct of their chiefs, and thus every victory was ascribed to him.

In many parts of the *Peninsula*, *Christians* are called, and considered, as followers of Budd'ha; and their divine legislator, whom they confound with the apostle of *India*, is declared to be a form of Budd'ha, both by the followers of Brahma', and those of Jina: and the information I had received on that subject, is confirmed by F. Paulino.†

Some legendary tales, obviously relating to the death of our Saviour, have found also their way into the Peninsula. There was a certain Peishécára Brahmen (for thus the Christians were called, and Christ in the Apocryphal Gospels, and by the Manicheans was considered as a Peishé-cár Bráhmen, an artist, manufacturer, or carpenter,) who came to a certain place, and there loudly proclaimed, that all persons in distress should come to him; and that he would take them under his protection, and EVEN LAY DOWN his life for them. He was then sitting like a Muni, or contemplator; and many came to him: among them was a thief, who had robbed the King's palace to a considerable amount. The officers of justice soon arrived in pursuit of him, but the holy man would not deliver him up,

signal il selle 'un, per anticolie

Diod. Sic. p. 660 and 678.

[†] Systema Bralimanicum, p. 161.

who claimed his protection. The King ordered, that the holy man should suffer immediate death, upon a Sula or Suli, which means a stake, either one for empaling, or a gibbet, or cross. Crucifixion being unknown to the Hindus, they of course, have no name for it: and Sula or Suli, originally a stake, signifies also a gibbet, or the cross; exactly like Stauros in Greek-It is so even in the Persian language; and so it was among the Romans, according to Seneca;* crucifixion signified both empaling and extending the arms upon a cross bar; for these two modes of punishment were equally in use among them: a circumstance very little known.

Then the holy man was stretched upon the 'Sula, amidst the lamentations of the surrounding multitude, to whom he-observed, that he came for that purpose, (to atone with his life for the sins of others). The 'Sula was suddenly changed into a 'Sála, or tree loaded with flowers; a pushpavarsha took place, as usual on such occasions; that is to say, it rained flowers from on high; a celestial car, with divine choristers, came down to translate into heaven the holy man who, taking the thief by the hand, said, "thou shalt also be with me in Cailása or paradise." Thus they went to Cailása in the presence of an immense crowd, who with uplifted hands, loud huzzas, and tears of joy, testified their satisfaction, at the sudden change. The Muselmans, and the Manicheans, with many other sectaries, will not allow that Christ was really crucified. Some say, that it was a mere illusion; others allege, that he disappeared, and went

^{*} SENECA de Consol. ad Marcium, p. c. 20.

to heaven. The Manicheans, who spread their errors at a very early period, not only in the northern parts of India, but also in the Peninsula, always represented Christ crucified upon a tree, among its foliage and flowers. Though this legend is not applied to Sa'li-va'han, or Sa'la-va'han, as it is pronounced in the Dekhin; yet, when the good Peshé-car Bráhmen was stretched upon the Sula or Suli, he was really Suli-váhana, or cross borne: and when the Sula was changed into a Sála or tree, he was certainly Sála-váhan, or Sali-váhan, he who was exalted, or borne upon the tree. Though the punishment of the cross be unknown to the Hindus, yet the followers of Budd'ha have some knowledge of it, when they represent De'va-Tat, crucified by order of Budd'ha upon an instrument somewhat resembling a cross, according to the account of several travellers to Siam, and other countries.

We read in Sanscrit lexicons, that 'Sa'liva'han was also called Ha'la a plough: it should be Ha'la-va'hana, or in composition, Ha'li-va'hana; he who was borne, or crucified upon a plough. The old Indian plough had originally the shape of the letter Y, like the old Latian Furca, or bifurcated stump of a tree. To one branch the plough-share was fixed; and the other branch served as a handle. In the statues of Vishnu, and Balara'ma, the plough in their hands is represented nearly in that manner: and, from that circumstance, Bala-ra'ma is called also Ha'la, and Ha'li, or he with the plough.

The legend of the good Peishé-car Bráhmen, is found in Major MACKENZIE's historical sketches of the ancient kings of Warangola,

otherwise I should not have presumed to insert it here. It is interwoven with the history of the first Kings of that country, and of course the compilers by no means entertained an idea, that it was anterior to the *Christian Era*.

As I was mentioning this traditionary legend to some learned *Pandits*, they informed me, that the same, or one at least very much like it, was to be found in the *Mahá-Bhárata*, the *Sahyádri-c'handa* a section of the *Scanda-purána*, and in the *Bhágavata* also. I produced the books, and they pointed out the respective pages immediately. I read the whole, and found it illustrated with circumstances of a most extraordinary nature.

In the Bhágavata, and its commentary, this legend is only alluded to. In the Mahá-Bhárata there is a short account of the transaction; but in the Sahyádri-c'handa, the legend is drawn to a very great length,* and the principal features, and circumstances in these legends, which in reality are but one, are the following.

There appeared, in the Dekhin, a most holy Bráhmen, of those called Peishé-cáras, Tacshacas, Sábacas, or handicraftmen, and whose name was Mand'avyah. He proclaimed, that he came for the sole purpose of relieving the distressed; and that whatever men claimed his protection, he would readily grant it to them, and even lay down his own life for them.

Bhágavata; Section 1. p. 13. Mahá-Bhárata; Section 1.

Very many of all descriptions came accordingly; and among them a thief, who being pursued by the officers of justice, claimed his protection, which he readily granted, and was really crucified in his room. He then ascended into heaven, and took the thief along with him.

This circumstance is otherwise related in the above *Puránias*. A numerous banditti had taken shelter near the holy man, thinking themselves safe: but the officers of justice arriving, they were seized, and immediately crucified. The holy man was supposed to be a thief, numbered among them, and crucified also. He did not open his mouth, but remained absorbed in holy contemplation, inwardly repeating sacred names, with his arms extended, and uplifted.

Whilst on the cross, all the Rishis crowded from all parts of the world, in the shape of birds, to see him, and comfort him. A certain thief, who was also covered with leprosy, and, in consequence of it, deprived of the use of his limbs, was accidentally dropped at the foot of the cross, wrapped up like a child in his swaddling clothes. The man, after remaining there some time, was perfectly cured; and, being irradiated, repented, lived to a good old age, and obtained eternal bliss. A thick darkness overspread the face of the world; and the animated creation was in the utmost distress, and consternation. The holy man, being afterwards taken down from the cross, descended into hell, and there encountered, and overcame, death, or Yama. Then a general renovation of the world took place, under the inspection of Brahma. The holy man, from his having been crucified, was ever since called Sulastha, or the cross-borne, which is synonymous with

SALIVA'HANA. If we prefix to this abstract the legends concerning the infancy of 'SA'LIVA'HANA, and the era of his manifestation, we shall have the principal circumstances of the life of our Saviour, either from the true Gospels, or from the Apocryphal ones.

There are two singular circumstances in these legends: the first is that it was decreed, that the iron should pierce the body of Mand'avvah as well as that of Crishna, because both were accursed, though guiltless. The second is, that neither Crishna nor Mand'avvah died, the first in consequence of his wound, nor the second after being crucified; and both are represented as contemporaries.

The Christian sectaries in the first ages, and Muhamed himself with the Muslemans to this day, highly reprobated the idea of Christ dying upon the cross, and even considered it almost a blasphemy. Crishna, though guiltless, was involved in the general curse denounced against his whole tribe, by which all the Yadus were doomed to be pierced with iron, and to die. Neither Crishna nor Mandavyah could die; but they were to be brought, as near as possible, to the point of death, that the words of the Muni should not be done away. Besides, Yama, as King of death, has a claim upon every individual, and with regard to some exalted characters, he must be satisfied, and a compromise must take place. But another difficulty arises; Yama cannot condemn a man to die, without some reason; it would be unjust in him, who is also King of justice. All incarnations of the deity, however dignified and exalted, such as that of Crishnal of the deity, however dignified and exalted, such as that of Crishnal of the deity, however dignified and exalted, such as that of Crishnal of the deity, however dignified and exalted, such as that of Crishnal of the deity, however dignified and exalted, such as that of Crishnal of the deity is considered as the first in rank, and the most perfect of all; all

manifestations of the deity, I say, on becoming flesh, are more or less subjected to the infirmities, and even the weakness of human nature, being certainly involved, in some measure, in the gloom of máyá, or worldly illusion. In this case, Yama is always sure to find some taint of negative guilt, in consequence of which he can at least bring them to death's door: and it was found that Mand'avyah, in his infancy, had destroyed a feeble and innocent insect, by piercing him either with a needle or with a blade of grass. This fatal needle was the only thing that Christ ever possessed in this world; yet, however insignificant in itself, it was certainly a worldly implement, and it prevented his admission into heaven, according to Muselmans in India; neither will he ever be admitted till after his second manifestation, at the end of the world. Others say, that he was admitted into the fourth only, instead of the highest heaven, on that account.

We read in the Mahá-Bháratá, that there was a most holy and pious Bráhmen called Mand'avyah, who was making tapasya with his arms uplifted, absorbed in holy contemplation. Some lóptras, lifters or thieves, placed themselves near him, with their stolen goods, thinking to be safe; but the King of that place, who was in pursuit of them, ordered them to be crucified, and as the holy man gave no answer, he was numbered among them, and crucified with the rest. In the night-time, all the Rishis, hearing of his misfortune, flocked from all quarters, in the shape of birds, to comfort him. In the mean time the thieves died on the cross; but the holy man remained meditating, without uttering a word, with his arms uplifted. The King hearing this, immediately saw that Mand'yyah was a

Rishi, and hastened to take him down from the cross; and then falling at his feet, humbly begged his forgiveness. Immediately the Rishi descended into hell, and asked the King of death, and of justice, how he could allow him to be crucified, as he was guiltless. Yama answered, that in his infancy he had pierced an innocent insect with a blade of grass. The Rishi said, that at that age he could not incur guilt of any kind, and of course drove him out of the infernal kingdom; and willed, that he should be born of the womb of a woman of the Sudra tribe. This was effected in the house of Vichitravírya, who was dead; but Dwaipayana, or Vya'sa, raised seed to him, through his wife and a handmaid. Yama was born of the latter under the name of Vidu'ra, and remained on earth 100 years, during which the government of the infernal regions was committed to Aryama', according to the Bhágavata. In the Sahyádri-c'handa, we have a most prolix account of this momentous event, which I shall give in abstract.

Whatever man listens with due attention to this legend, his sins shall be remitted. In the forest of Dandaca, in the Sahyadri mountains in the Dekhin, on the banks of the river Pranita, was the hermitage of Mandarvau, a most holy Rishi, most benevolent, and no accepter of persons. There he remained, between five fires, entirely taken up with holy contemplation, and inwardly repeating sacred names. A numerous banditti, with the goods they had stolen, being pursued by the King at the head of a strong party, took shelter near the holy man. As soon as the King came, he ordered them all to be crucified immediately; and the holy man

was numbered among them, and from his being crucified, he was, from that time, surnamed Sulastha, or the cross-borne.

'There lived in the adjacent village a most virtuous and faithful wife, who was married to a thief, and a debauchee, whose whole body was covered with leprosy: some of his limbs had dropped, and others were deprived of motion. He was very fond of gambling, and his faithful wife used to carry him, wrapped up like a child in swaddling clothes, to a gambling house, where he spent a great part of the night, when she carried him back in the same manner. It was midnight, and the night very dark, she passed near the cross, and stumbling against it, she shook it violently, and let her husband fall at the foot of it. The holy man being put to great pain, said to her, at the rising of the sun, thy husband shall die. Such are the powers of a virtuous and faithful wife, that she forbade the sun to rise. A thick darkness covered the face of the world, and lasted 10,000 years, during which the gods and the created beings were in the utmost distress and consternation.

'All the gods, with 'SIVA and BRAHMA, went to VISHNU the preserver, who resides on the northern shores of the White Sea, that is to say, in the sacred isles in the west. VISHNU was very much embarrassed, as he did not wish to reverse the decrees of either of two such exalted characters. After some consideration, he said to the gods, "ANASU'YA', the wife of ATRI, is most virtuous and faithful; go to her, and prevail upon her to go and speak to the wife of the thief, when they will together come to

some arrangement." Anasu'ya' consented, and after having discussed the matter with her, every thing was settled. In her character of a virtuous and faithful wife, she ordered that the husband should live; and Gun'A VATÍ, the thief's wife, ordered the sun to rise. Still it was necessary to satisfy the holy Mand'avyah, whose words could not be done away. They agreed, that in future all married women, when it is dark, or night, should remain as in a state of widowhood, taking off their nuptial dress and ornaments. The benevolent Mand'avyah was easily pacified, the sun rose as usual, darkness was dispelled; the holy man, who had remained all the while absorbed in contemplation, with his arms uplifted, descended from the cross; the leper, at the foot of it, was cured of his disease, lived to a good old age, and obtained eternal bliss; and the two virtuous and faithful wives were crowned with honor and glory. The air was filled with numberless choirs of celestial minstrels, singing heavenly strains, and the whole concluded with a shower of flowers from on high. In the mean time, the animated beings had all perished; and BRAHMA' was directed to proceed immediately to a new creation, and a general renovation of the world took place.

II. Christianity certainly had made a great progress in the *Peninsula*, even at a very early period. The venerable Pantenus of *Alexandria* visited *India*, about the year 189, and there found *Christians*, who had a copy of the Gospel of St. Matthew in *Hebrew*, which he carried to *Alexandria*, where it existed in the time of Jerome. Frumentius, the Apostle of *Abyssinia*, who had resided a long time in *India*, and spoke the language remarkably well, preached the Gospel in the southern parts, where he had

great influence, and was highly respected, having been for many years prime minister, and regent of one of the Kings, during his minority. There he converted many Hindus, and built many churches, and then went to Abyssinia. He came to India with his brother Adesius, along with their paternal uncle, a native of Tyre, who was a Christian, and a very learned He travelled into the interior parts of *India* as a philosopher, and having satisfied his curiosity, he re-embarked on his way back with his two nephews; but, happening to put into a certain harbour, in order to get a supply of water, they were, at their landing, suddenly attacked by Many perished, and the rest were carried into captivity. Among the former was the uncle; but his two nephews were presented to the King, who took particular notice of them, and they were afterward raised by him to the first dignities of the state. They obtained leave to revisit their native country, when Frumentius was ordained a bishop, and in that character went back to India. At the council of Nice, in the year 325, the Primate of India was present, and subscribed his name. In the year following, FRUMENTIUS was consecrated Primate of India, by ATHANASIUS, at Alexandria. He resided in the Peninsula, and the Christians there had always a bishop, called the Primate of India. The Christian religion made also some progress, in the north of India. Musæus, bishop of Aduli, on the Abyssinian shores, visited the northern parts of India in the latter end of the fourth century, in company with the famous PALLADIUS, a Goth from Galatia. When they arrived on the borders !of India, they were both disgusted with the climate. Palladius went back, but Musæus proceeded to the lesser Bec'hara; where, it seems, he was more successful. Yet there was at Sirhind, or Serinda, a seminary for

Christians, in the sixth century: for, in the year 636, two Monks, who had long resided there, returned to their native country; and being at Constantinople, the Emperor Justinian sent for them, to inquire into the nature and origin of silk, and he prevailed upon them to go back to Sirhind, in order to bring from thence the eggs of the real silk butterfly.

THEOPHILUS, the famous Arian bishop,* was a native of Divus, now Diu in Gujrát; and, as he was remarkably black, he was sirnamed the Blackamoor. His Hindu name was probably Deo-PA'L, perfectly synonymous with Theophilus in Greek. He flourished in the times of the great Constantine, and of his sons; and he had been sent to Constantinople with others as hostages. From this circumstance it appears, that the inhabitants of Gujrât, who have been always famous as pirates, had ill used the Roman traders. There was a great trade carried on at that time to India, by the Romans; and there was an annual fair held at Batné. for the vent of Indian and Chinese commodities, and there was a great concourse of merchants, many of whom were settled there. It was situated at some distance from the eastern bank of the Euphrates, and nearly in the same latitude with Antioch. He was very young when he was sent to Constantinople, where he studied, became a Christian, and embraced a mo-He was afterwards ordained a bishop, and sent to Arabia nastic life. by Constantius, in order to promote the interests of the Christian reli-

^{*} See Philistorgius, Sozomenes, &c.

gion. He met with great opposition from the Jews, who were very numerous in that country; but succeeded at last, and built three churches, for the benefit chiefly of the Roman traders. One was at Taphar or Tapharon, now Dafar, and the metropolis of that country; the second was at Aden, near the straits of Babelmandel, and the third near the entrance of the Persian Gulf. From thence he went by sea to Diu, his native country, visited several parts of India, comforting the Christians, introducing wholesome regulations, and spreading the errors of Arius. He thence returned to Antioch, according to Suidas, where he lived a long time, highly respected. He accompanied afterwards Constantius Gallus into Germany, as far as Petavium, now Pettaw in Stiria, in the year 354.

MARUTHA, a Hindu, and a bishop of Suphara, now Sufferdam, assisted at the Synod of Sides, in Pamphylia, in the year 383. He was afterward translated to the bishoprick of Meyaferkin, on the borders of Mesopotamia, when Yezdejird I., King of Persia, charmed with his piety, was very near becoming a Christian; and Chrysostom speaks highly in favour* of our bishop. According to the Notitia of Nilus Doxopatrius, the Greek Patriarch of Antioch, ordained a certain Ramogyris Metropolitan of India; and, from his name, there is every reason to believe that he was also a native of India, where the appellation of Rama-gir is by no means uncommon. Cosmas Indico-pleustes, who visited India about the year 522, says, that there were churches and priests, with the whole liturgy,

Photii Biblioth. p. 38, &c.

in Ceylon: also on the Malabar Coast, and in the north west of India. In these countries, says he, there are a vast number of churches.

The Mission of St. Thomas to India, with the surprising progress of the Christian religion, are facts, in my humble opinion, sufficiently authenticated. Jerome, who died in the year 420, speaks of the Mission of St. THOMAS to India, as a fact universally acknowledged in his time: but I must refer the sceptic reader to the works of FABRICIUS, and ASSEMANNI, unfortunately not to be procured in this country. But the learned history of the Anglo-Saxons by Mr. Turner will abundantly make up for this deficiency, in his dissertation on the embassy of the bishop of Shireburn, sent by the great Alfred, to the tomb of St. Thomas in India. That the holy Apostle suffered martyrdom in India, is sufficiently proved: but, at the same time, it is certain also, that his body was afterwards carried back, and deposited at Edessa, as attested by Rufinus, who went to Syria in the year 371, and remained there twenty-five years. The place, however, where he was first entombed, became a famous place of pilgrimage, where probably, they kept some particles of his body, either true or false: but the chief relic was his blood; which had impregnated the spot, where he suffered martyrdom. This earth was carried, in small quantities, all over the Peninsula; and, being drunk with water, proved most efficacious, in all sorts of diseases, and complaints. His tomb at Edessa was probably destroyed, during the wars of the Emperors of the west with the Persians; or afterwards by the Muselmans.

In the sixth century, Gregory of Tours, the father of French history,

became acquainted with a respectable man, called Theodorus, who had visited the tomb of St. Thomas in India. In the ninth century, Sighelm bishop of Shireburn was sent there also by Alfred, in consequence of a vow. Now, these two clergymen were too orthodox to worship the tombs and relics of an heretic, a Nestorian of the name of Thomas, as has been supposed by many; and they were too near the time, in which he lived, to have been imposed upon. The two Muselmans, who visited that place soon after Sighelm, mention the church of Thomas, on the Coast of Coromandel, as well as Marco Polo about the year 1292, long before the Portugueze had found their way to India. M. Polo says, that Christians and Muselmans were very numerous in the Peninsula.

Madras, was seldom visited by merchants, as there was no trade. His body, or tomb at least, was in a small city of that country, and the native Muselmans, and Christians, held it in great veneration. Pilgrims, from distant countries, came to visit this holy place; and the earth impregnated with his blood, was given in some beverage, to sick and infirm people; and miracles were often performed there. In speaking of Aden in Arabia, he informs us, that "St. Thomas was said to have preached there, before he went to Maabar in India, where he suffered for Christ, and there reposes to this day his most holy body. In that country (Maabar) the Christians are good soldiers, and remarkable for their honesty."

The inhabitants say, that the holy Apostle was a great prophet, and they call him AVARIIA, which in their language signifies a holy and pious

man. As Marco Polo has given us the meaning of the word Aváriia, it is very easy to reascend to its pure and original form, which is Av-Aryya in Sanscrit; and, as he says, that the Christians there were highly respected, being good soldiers, and above all, good and holy men, remarkable for their integrity, they were certainly Av-'Aryyas, or 'Aryyas, as well as their holy Apostle. The word Avaria is derived from the Sanscrit compound Av-'Aryya, from two words perfectly synonymous, Ava, and Aryya. The first is rendered in lexicons, by Sudd'ha, or Pavitra, equally implying holiness, and purity. It is often used in composition, where it enhances the sense. One of the titles of Budd'ha is Ava-Lócita, or Ava-Lóca-NA'T'H, the holy sovereign of the world: Ava-конаог A-кона, well seated. This word is very often pronounced ABA, and more particularly so, in the S. W. parts of India: and the same M. Polo mentions in the country of Laé, a race of most pious men called Abraiani and Abraian in the M. S. S. But the editors thought proper to write that word, Abrajamim; because they conceived that they were Bráhmens. But it is much more probable, that it is the same word with Avariiam, or Avariia, which he mentioned before. Ab-Aryya in the objective case, in the singular number, makes Ab-Aryyam, and Ab-Aryyan in the plural, in the first case. These Abraiani, says he, have in abhorrence lying, theft, and cheating. They marry but one wife, and abstain from intoxicating liquors, and flesh. They eat moderately, and their fasts are long, and most severe: otherwise. says he, they are idolaters. He then mentions other idolaters in that country; but from the context, entirely different from the Ab-Aryyas: who it seems, were only degenerated Christians, who had in great measure relapsed into the errors of their ancestors, and of their contemporaries.

From the situation, assigned to the country of Laé, by M. Polo, these good people, with the most austere manners, called 'Aryyas, seem to be the same with the holy and rigid penitents, and anchorets mentioned in the third century by Ptolemy in the country of Ariáca, a derivative form from 'Aryya, under the name of Tabassi Magi, from the Sanscrit Tapaswi, pronounced Tabásá in the Tamuli Dialect; and which signifies contemplators, and by implication men performing austere penances, like the auchorets in the wilds of Thebes, and Tabenna in Egypt; which denominations are probably derived from Tapa, austerities, and Tapó-van, the wilderness of austerities. The 'Aryyas are mentioned in the Brahmánda-purána* as a powerful tribe of foreigners (Mléch'ha) living among the mountains of the Dekhin.

Ptolemy says, that Ariaca belonged to the Sadinoi, a strange name certainly for a tribe. I suspect however, that it is derived from the Sanscrit Sád'hana, and that the 'Aryyas were thus denominated by the native Hindus, in the same manner, that the Portugueze were styled in Bengal, T'hac'hurs, rulers or lords, and the English all over India are called Sáheb-lócas, or Sahéb-lógues, and the most apposite Sanscrit expression for the above epithets is Sádhana: the English are often styled by learned Pandits, Sádhana-Engriz: and the famous Bhója is often called Sádhana Bhója. M. Polo mentions also Abraians on the Pearl-Fishery Coast; these were

Section of the Earth.

consulted by the fishermen; but, he says that they were bad men, and great sorcerers: and their descendants, to this day, are not much better. According to the acts of St. Thomas, and other notices, the holy Apostle embarked at Aden in Arabia, in his way to India, where he landed at a place called Halabor, and afterwards Salo-patan, synonymous with 'Sálo-pur, or 'Sála-buram, Hála-buram; and now Cranganor. He was well received by Masdeus, called also Segamus, King of that country, whose son Zuzan he converted, and afterwards ordained him a Deacon. The Apostle, long after, suffered martyrdom, at a place called Calamina, known afterwards by the name of Maliar-pur, or the city of Peacocks, from the Sánscrit Meyúr-pura; and the same which is called Maliar-pha by Ptolemy. Its present name is St. Thome, called by the Arabs, during the middle ages, Betuma, or Beit-Thoma, the house or church of Thomas.

MASDEUS, the name of the King, who kindly received St. Thomas, Zuzan that of his son, and Segamus his own surname, are all Hinds denominations. Masdeus is for Basdeo, the usual pronunciation of Va'sude'va in the spoken dialects. Segamus is for Sugama, synonymous with Sugar, and shews that he was a follower of Budd'ha: and Sangama, even now, is not an uncommon name in India, particularly in the Peninsula. Zuzan is for Sajana, or Sezan, as written by Father Giorgi. It is the name of the father of Budd'ha, called also Ajana, by the Puránics; and the disciple and successor of Manes, who pretended to be an incarnation of Budd'ha, was called Sisinius.

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The place of his martyrdom is called Calamina by HIPPOLYTUS, ac-

cording to Mr. TURNER. Calamina is a Tamuli denomination, and literally signifies earth, and stones, alluding to the nature of the soil. It is synonymous with Mana-para, which signifies the same thing, according to F. Bartolemeo, a missionary acquainted with both the Sanscrit and Tamuli languages: but I by no means conceive them to be the same place. Cálá or Cálu in Tamuli signifies a stone, or Callou in French, and Mána earth. Thus, point Calymere, the true name of which is Cálá-me'du, signifies the stony hill. There were two bishops of the name of Hippolytus, one of whom resided in Arabia, and they were contemporaries. The latter probably wrote the treatise concerning the peregrinations of the Apostles, and died, A. D. 230.* Dorotheus, another bishop, born in the year 254, wrote also on the same subject; and some fragments of his work are to be found at the end of the Chronicon Paschale. There he asserts, that St. Thomas died at Calamita (Cálá-medu,) which is synonymous with Calamina, or heid of a same with the contraction

Some Manicheans, at a very early period, went to the Malabar Coast: for, according to La Croze, in his history of Christianism in India, the Christians of that country said, that, before they had submitted to the jurisdiction of the Catholicos, or Nestorian Patriarch, and of course, before the arrival of Mar-Thome, there came into their country a certain Mannacavassar, who preached a new doctrine, seduced the people by his prestiges, and introduced his errors. La Croze did not

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Series Patrum, p. 62.

understand the meaning of the word Mannacavassar; but suspected that he was a Manichean. He was called, by the people of the Dekhin, Mani-Cavissar, which signifies the bard, the prophet Mani. Cavissar is derived from the Sanscrit Cavi, poetry, songs, and Iswara, lord, chief: Cavisar, for Cavyeswara, signifies the lord of the song, or the chief bard, and is used in that sense in the Peninsula, according to Major Mackenzie.

The two Muselman travellers in the ninth century, and the Nubian Geographer, probably on their authority, declare, that there were many Christians, Manicheans, Jews, and Muselmans in Ceylon: and that the King encouraged their public meetings, and that the learned Hindus of that country used to frequent them; and that the King kept secretaries to write down their respective histories, and the exposition of their doctrines and laws. These two travellers were in Ceylon, at that time; and these meetings, as well as the places at which they were held, are called Charchita by the Puránics, and appointed for the purpose of making Charchá, search or investigation, into new dogmas, and opinions, which began to disturb the peace of the country.

The Muhamedans in India acknowledge the early establishment of the Christians in that country. Ferishta, in his general history of Hindostan, says: "Formerly, before the rise of the religion of Islam, a company of Jews and Christians came by sea into the country (Malabar) and settled as merchants or Pishcaras. They continued to live there until the rise of the Muselman religion."*

^{*} Asiat. Reg. Miscell. p. 151.

III. The decline of the Christian religion in India, must be attributed, in a great measure, to the progress, equally rapid and astonishing, of Islamism, in Syria, Persia, Egypt and Arabia. The Christians in these countries, being in a state of distraction, no longer sent pastors to India; as we are informed in a letter written in the seventh century, and still extant, according to Mr. Turner. There we see the Nestorian Patriarch Jesujabus of Adiabene, reproaching the Metropolitan of Persia, with having shut the doors of the episcopal imposition of hands, before many people of India: that the sacerdotal succession had been interrupted, from the maritime borders of Persia, down to Colon, or Coilan, a space of above 1200 Farsangs. This agrees with what is related by Muselman writers, who say, that in the reign of the Caliph Abdulmalec, in the latter end of the seventh century, the Christians of India sent to Simon, the Syrian and Jacobite Patriarch of Alexandria, requesting that he would send them a bishop.*

The bulk of the Christians of St. Thomé, according to Mr. WREDE, like the 'Aryyas, consisted of converts from the higher classes; and they were nearly upon the same footing with the Bráhmens, and Nairs or nobles. They were originally much respected by the Hindus, and native princes; and they considered themselves equal in rank with the Bráhmens and Nairs, and claimed the same exemptions and privileges, which were granted to them. Many amongst them, preserve till now the manners, and mode of life of the Bráhmens, as to personal cleanliness, and abstaining from animal food: and the Roman missiona-

^{*} See D'HERBELOT's Biblioth. Orient. v. Hend. u. Sind p. 415.

ries, in general, adopt the same regimen, in order to gain credit among them.

These Christians were then very properly denominated 'Aryyus and Tacshacas, or Peishcára Bráhmens. These and their Kings probably introduced the Christian Era into their country: but, in the same manner, that their sanctity, and their power in India are foretold in the Purán'as, their fall is equally mentioned. When, says the compiler of the Váyu-Purán'a, their time is come, the 'Aryyas will pass away, like the rest.

These good 'Aryyas are called 'Sálwas, 'Sálavas and 'Sályas in the Cumáricá c'han'da. These three forms are regular, but the last, according to Mr. Joinville, prevails in the Dekhin, and Ceylon; where they are called 'Sálé, Sályas, and Chállyas, because, I suppose, they were the followers of 'Sa'là. They are called also in that country, 'Saca-Rájà-vánsas, and Sála-vánsas in the western parts of India. They are now followers of Budd'ha; and in the Peninsula the Christians are included in the general denomination of Bauddhists, and their divine legislator is considered as a form of Budd'ha.

The chief of the 'Sályas, or 'Aryyas, is called 'Aryyasira by the followers of Budd'ha, a Sanscrit compound implying as much. He was overthrown by Budd'ha, and yet he is called Pra-Aryya-'sira, or Pra-Aria-seria, the venerable Sire, or chief of the 'Aryyas.

The Manicheans, and the Muselmans, on the authority of the Apocryphal Gospel of the childhood of Christ, and that of St. Barnabas, of which they have copies in Arabic, Persian, and even in the western lan-

guages of Africa, represent Christ, as the most complete Tacshaca, that ever existed. He was not only an excellent carpenter and statuary; but he was deeply skilled in the combination of all sorts of colours. For this reason, the ingenious H. Syke, who has given us a translation of the Gospel of Christ's childhood, from the Arabic, and some fragments of the original in Greek, says, that dyers in Persia, consider Christ as their patron. It seems indeed, that the greatest part of the Christians, in Arabia and Persia, were handicraftmen: and that they were accordingly called Peishe-cáras, both because they were really so, and because they were the followers of the great Tacshaca or Peishe-cára. According to D'Herbelot, the disciples of Christ were called in Persian and Arabic, Kassarins or Kassáruns, and Haváryuns, that is to say, fullers and bleachers: and the priests of the Christians of St. Thomas are called Kassanars to this day, perhaps for Kassáruns.

Mr. Joinville, in his account of Ceylon,* mentions the arrival of numerous families of these Peishe-cáras, Peish-cárs, into that island; and declares, that they were all artificers, and handicraftmen, as implied by their name, which is truly of Persian origin; though used all over India, in the northern parts of which, it is generally pronounced Peishe-Ráz. According to T. Hyde, the Pársis in India, are all artificers, and those in Kirman deal chiefly in woollens.

There were formerly Brahmens in India, says the same gentleman, who

^{*} As. Res. vol. vii. p. 433, 443.

were handicraftmen, such as weavers, weaving stuffs variegated with gold and silver, and of divers colours. These were called, from that circumstance, Peish-cári-Bráhmens. But they could not be followers of Brahma'; for the employments of weavers, and dyers, are absolutely incompatible with the sacerdotal class: in extreme distress a Bráhmen may sell stuffs, but even then, under very peculiar restrictions. They might however have called themselves Bráhmens, at least their priests, without any impropriety; for every priest is really a Bráhmen in his own religion. A few individuals might have become weavers; but then, they would lose their cast, and it is impossible that a numerous body of Bráhmens should follow that profession. It is then much more probable, that they were not, strictly speaking, Bráhmens of Hindu extraction; but the followers of a new religion, introduced by foreigners, the disciples of a Peish-cára, and themselves Peish-cáras, or at least many of them.

Their first arrival in Ceylon, happened nearly about 1845, after the famous war between Rama and Rama, called the Rawana-Yuddha. Rama lived thirteen generations before the Cali-yuga, answering to about 400 years; and the Cali-yuga began 1370 years before Christ. The completion of the 1845 years will then fall about 77 years after Christ. Vidaya, according to Captain Mahony, was the first King of Ceylon, after this period of 1845; during which, the island was desolate, and overrun by Demons. Then, says the same gentleman, the Christian natives insist, that this King Vijaya was crowned 77 years after the birth of our Saviour. This King Vijaya was not a Bauddhist: for the ninth King after him was the first who embraced that religion; and his name was Deveni-pati.

All the missionaries to China, were really Tacshacas, or Peish-cára-Bráhmens, in the strictest sense of the word, as well as the pious Moravians: and Paul the Apostle was a Tacshaca, and a Peish-cára-Bráhmen: and, by the account of Mr. Wrede in his narrative of the Christians of St. Thomé, they were formerly Peish-cáras: for, says he, they were in fact the only, or at least, the principal merchants in the country, till the arrival of the Arabs.

The ingenious Mr. Joinville, on the authority of several treatises in the Magadhi language, the names of which he mentions, says, that there were even Kings among these Peish-cára-Bráhmens, in the Peninsula, to the number of thirty-five:* from the context, it appears, that some were in a collateral, and others in a successive line. The names of their kingdoms, or rather their Metropolitan Cities, were Solo-patan; Mahá-patan (now Patan, the Baitana of Ptolemy in the Dekhin, on the banks of the Gódáveri, to the southward of Dowletabad); Curu (now Cauri, or Coyr); Gadahare (Gawda); Mácanda, (now Mahásunda-pilli); and Cási. This is confirmed in the Bhágavat, Váyu, and Brahmándá-puránías, in which it is declared † that Aryyá, or 'Saca, and 'Sálava was the name of a dynasty of Kings in India; and who were to be immediately followed by the invasion of numerous swarms of other foreign tribes; and of the dynasty of these 'Sacas, there were five and twenty Kings, according to the Puránías in the chapters on futurity.

Solo-pátan was a sea-port town, according to Cosmas Indopleustes, about

^{*} As. Res. vol. vii. p. 443.

[†] In the Sections on Futurity.

the middle of the sixth century, on the Pepper or Malabar Coast. There were, says he, five sea-ports famous for trade, Parti, Mangarouth, Saloupatna, Nalo-patana, and Poudu-patana; and all these names are truly Indian. There are several places in the Peninsula, called Parti-guddy, or fort of Parti. Mangarouth seems to be Mangalore, and Nalo-patana, Nali-suram; Saloupatana is called Sooloo-patonow by the people of Ceylon, and had Kings of its own of the Peishe-cáré-Bráhmen tribe, or Christians.

'Sálo-patan, otherwise 'Sálo-buram, and 'Sálo-pur, is the same with Hála-bor where St. Thomas landed, and its present name is Cranganore. There he converted 'SAJANA son of the King of that country.

We read in the history of the Christians of St. Thomas, that they had Christian Kings of their own; the first of whom, was called Baliarte, from the Sanscrit Bali-arhat. After several successions, one of these Christian Kings dying without male issue, adopted the King of Diamper for his son, according to the custom of the country, though he was a heathen, and appointed him his successor.

That a society of Peishé-cáras, weavers, and handicrastmen, however numerous, should have Kings of their own, is inadmissible; unless they were upon such a footing, as the Christians were formerly in the Peninsula. St. Thomas converted the son of the King of some country on the coast of Malabar and the Puránas declare, that there was a dynasty of 'Aryya Kings.

The name of Aváryya is not totally unknown in the Peninsula: they have still in great veneration, a certain Sibyl of divine origin, most pious, and good, called 'Avya'r; and who lived in the ninth century. A translation of some of her moral sentences, is inserted in the seventh vol. of the Asiatic Researches. It seems she was conversant with the Christians of that country; for among her proverbs, there are some, that are far from being in the usual style of the Hindus.

The descendants, or followers, of SA'LAVA'HANA are mentioned in the commentary upon the Calpa-druma. In religious matters, and particularly in the east, they generally call the followers of any reformer, or legislator, his descendants. In the above commentary 'Sa'lava'hana is declared to be a Jaina, meaning, either a follower, or a form of JINA. He is called there also, a Srávaca, or Sávaca; that is to say a Peish-cára. In the western parts of India, as in Gurjar'át, they call all tradesmen, banyans, &c. Sácacas, or 'Sábacas. The famous Calica'cha'rya is supposed to have visited 'Sa'la-VA'HANA, at Pratisht'ana in the Dekhin; and, according to the above commentary, he was born 993 years after the ascension of Jina, or 43 years B. C. He travelled all over the *Peninsula*, teaching, and explaining the doctrine of Jina; and particularly among the Sábacas. He is supposed to have taught 'Sa'lava'hana some peculiar rites, to be observed at the full, and new moon; which, he promised, he would enjoin his descendants, or followers to observe. The posterity of a Sábaca, or Peish-cára, particularly in India, were necessarily Peish-cáras, and Sábacas. A patronymic denomination was also given to them; for they are called 'Sálwas, 'Sálawas, and Sálbas

in the Cumárica-c'han'da, answering to the Arabic expression, of Ashab-al-Sálib, or Salb, the followers of the cross, or of him, who was crucified. According to A. Roger, there is still in the Dekhin a considerable tribe of men called 'Sálavádis, from the Sanscrit 'Sálavádicas, the 'Sálavas or followers of 'Sa'la.

In the Váyu-purán'a, they are called 'Sacas, and in that passage, this name is used in the room of 'Aryyá to be found in other Purán'as; and it is declared there, that they would appear with the And'hras and Pulindas; the dynasty of the first began in the year 191 after Christ: and it is obvious from the context, that the dynasty of the Sacas, 'Aryyás, or 'Sálvas was contemporary with those of the And'hras, and Pulindas; though we cannot fix precisely the time when it began. By Pulindas, they understand dynasties of Kings from the lowest and vilest classes in India.

The descendants, or followers of King Saca, are called by Mr. Join-ville, and Captain Mahony, Saca-Rájá-Vánsas, a true Sanscrit expression, implying as much: and we have seen, that there are still in the Dekhin, and Ceylon, some families or tribes so called to this day. I was greatly surprised, sometime ago, to hear from most respectable Pandits, that there was in the district of Benares, and in the province of Oude, a tribe of Rájaputras, who boasted of their descent from Sa'lava'hana; and that the chief of that tribe was considered as a living hereditary deity, and a form of Vishnu, like their Sire Sa'lava'hana. What is still more surprising, is, that this chief does what he can to conceal his divirity, and to make people believe, that it is not so. But in despite of his endeavours, some peculiar circumstances will occasionally betray him; and such an instance, it is said,

happened last century. They are descended more probably from the followers of another 'Sa'lava'hana, a Manichean, or Manes himself, as I observed before.

As these Rajaputs call themselves Vais'yas, synonymous with Srávaca or tradesman, it seems, that they originally followed that profession. Probably some will say, that if the 'Saca-Rája-Cumáras, had been once Christians, they must of course have lost their cast. This might be the case now: but, I do not believe it was so formerly; and then, the Purán'as afford us immediate remedy, for in the chapters on futurity, it is declared, that the Kings of Magad'ha would raise men of the lowest classes to the rank of Brâhmens, and other superior casts; exactly like Jeroboam, and other Kings of Israel. This prophecy was to take place, after the fall of the And'hra dynasty in the seventh century.*

Besides, a whole district, a whole tribe, might embrace another religion, without losing cast; the full exercise of its privileges being always confined to themselves. For we must not think, that persons of the same cast, will communicate one with another all over *India*, and eat together, or of food dressed by another. The communication is confined to a few families in their neighbourhood, whom they know to be strict observers of the rules relative to their cast. The rest of the tribe are in a great measure outcasts to them. This almost incredible adherence to the punctilio of casts, was in a great measure owing probably to the rapid increase of the religion of Buddah, then afterwards of that of Christ, and Muhamed,

^{*} See Brahmán'da and Váyu-purán'as. Section on Futurity.

and of the heresy of Manes, in the N. W. parts of India, and also on the coast of Malabar, and Ceylon. Among the Christians in the Peninsula, be they Protestants, Roman Catholics, or Nestorians, there are Bráhmens, who are nearly upon the same footing with the other Bráhmens: and, when acquainted with them, such civilities, as are usual among well bred people, are never omitted. The Christian Bráhmens most rigorously abstain from beef, and animal food, though they say they can eat of it. The greatest part of the Brahmens in Persia, Turan, and near Baku, eat beef, but never of the flesh of the cow, like many of the Egyptians of old. There are several of these Brahmens settled at Benares; and they are acknowledged as such, though not much respected, being nick-named Véda brashtas, or breakers of the Védas; for a Bráhmen may be a heretic without losing his cast, which is not so much connected with his creed as might be supposed. In short, the Hindus acknowledge themselves, and it appears from their sacred books, that they are beef formerly; but they took care to inform me, at the same time, that they never ate of the flesh of the cow. It is declared, that there are no Cshettris now, or in other words, that the second class no longer exists. Yet those, who have been raised to that rank from the lowest classes, are treated as such by every Bráhmen.

We read in the institutes of Menu, that all the C'hasyas, or those who inhabit the snowy mountains, have lost their cast. Yet they must have recovered it; for there are numerous families of Bráhmens in those countries, particularly in Almorah or Cománh, and much respected at Benares, who by no means consider the bulk of the inhabitants, who are C'hasyas, as

outcasts. They assured me on the contrary, that they considered them as belonging to the second class, and that they are treated as such by every Bráhmen, in despite of Menu and of the Puránicas.

Let us suppose some extensive district in *India* solely inhabited by Europeans, and that these were entirely willing to conform, in every thing, to the religion of BRAHMA, and the manners of the Hindus. Their resolution would be highly approved of by every Brahmen; and they would soon find many to officiate, and pray for them, on their being of course paid for their trouble. Let us add to this, numerous grants of land, villages, honours, privileges, and an entire submission to their will, they would soon treat them as Cshettris, as they do the present Rajputs. It is true, they could neither intermarry, nor eat with the other Hindus, but the four great classes never intermarry, nor eat, but with particular families of the same tribe in their own class. After a few generations, they would say of these Europeans, what they say of the present Rajputs and Mahrattas, that they were not originally Cshettris nor Bráhmens, and are a spurious race. This would not do, it is true, for a single individual, who would find himself insulated, and lost entirely, unless he assumed the character of an anchoret or penitent. I had long conversations with learned Pandits, on the subject, and this was their opinion, and that even they might have Brahmens of their own, by studying their sacred books, and obtaining the necessary knowledge, which would not be attended with much difficulty. With regard to their ancestors having ate beef, this could be no objection, as there is not a Hindu, whose ancestors, at some remote period, it is true, did

not eat beef, and every sort of animal food, except perhaps a few unclean sorts. Whatever man, say the learned, performs the duties (Carma) of a Cshettri, him you must consider as a Cshettri. But what should put an end to the controversy, at least in my humble opinion, is that the Mahrattas, a numerous and respectable tribe of Bráhmeus, and Cshettris, are acknowledged, all over India, to be foreigners from the western parts of Persia, who left their native country not 1200 years ago, as I shall shew in the appendix. Even though this alleged origin of the Mahrattas should prove untrue, yet the universal acknowledgment of it is very much in favour of my assertion.

The followers of Brahma', and those of Budd'na, were by no means indifferent to the progress of foreign creeds. They often ordered conferences to be held, where the principles of these religions were inquired into, the history of their legislators, &c. This was practised in Ceylon in the ninth century, according to Renaudor's two Muselman travellers; and Bráhmens unanimously acknowledge, that this was their practice formerly, with regard to the Baudd'hists; and that these conferences were called Charchá, or investigation, search, Cherche in French; and that towns appointed for that purpose, were called Charchita-nagari, one of which is mentioned in the Cumáricá-c'handa. "In the year 3291 of the Cali-yuga (or 191 after CHRIST) King 'SUDRACA will reign in the town of CHA'RCHITA NAGARA, and destroy the workers of iniquity." This points out a persecution in religious matters, at a very early period. These conferences ended in bloodshed, and the most cruel and rancorous persecution of the followers of Budd'ha, even from the confession of the Brahmeus themselves. They were tied hand and foot, and thus thrown into rivers, lakes, ponds, and

sometimes whole strings of them. Be this as it may, the followers of Budd'had did not fail to retaliate whenever it was in their power; for Dr. F. Buchanan informs me, that in the Dekhin the Jainas make their boast of the cruelties that they exercised at different times upon the Bráhmens, and that there are even inscriptions still extant in which they are recorded. This general persecution was begun by a Bráhmen called Cuma'rilla-Bhatta'cha'ra, and carried on afterwards by Sancara'cha'ra, who nearly extirpated the whole race. It is difficult to say when this took place; but as there were vast numbers of Baudd'hists in the Peninsula, in the Gangetic Provinces, and Gujarát, in the ninth, tenth, and eleventh centuries, this general proscription could not of course have taken place at these periods. It is very probable that the Christians were occasionally involved in these persecutions, as the Christians of St. Thomas are considered as Baudd'hists in the Dekhin, and either their divine legislator, or his apostle Thomas, is asserted to be a form of Budd'ha.

The Hindus, and more particularly the followers of Budd'ha and Jina, fancy, that there are hidden mysteries in certain numbers. It was so formerly in the west, among the heathens, the Jews, and the Christians. All over the world, the numbers one and three were considered as radical; and their combination was subject to whimsical rules. They are by no means to be added together, for one and three, in a mystical sense, are but one and the same thing. We might suppose, that the square, and cube of three would be sacred numbers; but it is by no means the case. Eight is the mystical number, and three times eight, or twenty-four, is a sacred number; and being multiplied by three, the product is mystical also, and the number of years of J A's life. The reason is, that one stands in

the centre representing Jina, who is three and one. Eight forms sprang from this toward the eight corners of the world, and each of these is three and one: but we cannot say, that these eight forms, with the original one in the center, make either nine, or twenty-seven; for though each collateral form is perfectly distinct from each other, yet it is individually the same with the original one. Sectaries, at an early period entertained accordingly strange notions concerning the number of years that Christ lived concealed, performed the duties of his ministry, and lastly about the length of his life. They conceived that every circumstance relating to so exalted a character, was mysterious. Some insisted that he lived thirty, thirty-three, forty, and others nearly, but not quite fifty years. Stephanus Gobarus has collected many of these idle notions, in the extracts made of his works by Photius.

It is not obvious at first, why 'Sa'liva'hana is made to have lived eighty-four years; but it appears to me, that this number was in some measure a sacred period among the first Christians, and also the Jews, and introduced in order to regulate Easter-day; and it is the opinion of the learned, that it began five years before the Christian Era, and the fifth year of that cycle was really the fifth of Christian Era, but the first only of his manifestation to the world, according to the Apocryphal Gospels; and it was also the first of the Christian Era. In this manner the cycle of eighty-four years ended on the 79th of the Christian, which was the first of 'Sa'liva'hana's Era, and was probably mistaken for the period of his life. It is mentioned by St. Epiphanius, who lived about the middle of the fourth century.*

[•] See BASNAGE'S History of the Jews, page 436. English translation.

IV. The followers of Budd'ha, in Siam and the Burman Empire, mention the wars of their legislator with De've-Ta't, who, they say, is the legislator of the Christians. He is the same who is called a Tacshaca also by the Hindus, and who manifested himself in the first year of the Christian Era. They say that he was either a brother, or a relation of Budd'ha; or in other words, he was a collateral form of Budd'ha. They acknowledge some conformity between his doctrine and theirs; because, as they say, his disciples borrowed many things from Budd'ha. He allowed them, however, to kill and eat all sorts of animals, and seduced very many of the disciples of Budd'ha; and, aspiring to sovereignty, he waged war against SAMAN'A-GAUTAMA. He appeared at the head of a new sect, and engaged several kings and nations to join him. He had the gift of miracles, and asserted that he was a god. DE'VE-TAT being several times worsted in this war, made overtures of peace, and Saman'a-Gautama consented, on condition that he would subscribe to three articles which he was going to propose. These were to worship, first, God; then his word; and thirdly, the person who imitates the divine perfection, or, in other words, to worship Budd'ha. This last article was rejected by DE'VE-TA'T or his disciples, and they went to war again; when De've-Ta'r was defeated in the forest of Sálatúyah in the Peninsula. † He was taken prisoner, and empaled alive, with his limbs trussed up, upon a double cross; and in that state hurled into the infernal regions. 'SAMAN'A-GAUTAMA, however, foretold, that in the end he would really become a god. Budd'ha, or Gau-

[†] This is noticed also in the As. Res. vol. vi. p. 269.

TAMA is also represented waging war with PRA-ARIA-SERIA, for PRA-'ARYYA'-SIRA, the venerable chief, or Sire of the 'Aryyás or Christians; and another chief of them, called PRA-SWANE, or PRA-'SWANA, from his loudly preaching against the doctrine of GAUTAMA. BUDD'HA and DE'VA-TWASHT'A' are made contemporaries in this romance: but this can be no objection; for it is only in allusion to the wars of their followers in subsequent times. The learned are very well acquainted, that this mode of writing history once prevailed in the west at a very early period.

The beginning of the seventh century is remarkable for the introduction of new eras among the civilized nations of the world. The Christian Era was introduced at Constantinople in the year 526; but, as the learned observe, it was a hundred years before it was generally adopted, and this was in the beginning of the seventh century.

In Persia, the era of Yezdegird began in the year 632; that of the Hejra was introduced by Omar in the year 638. Those of Siam with the Burmáhs have an era beginning in the year 638; but as they borrowed every thing relating, either to their religion or their astronomy, from Ceylon, and the Peninsula of India, this period must have originated there. The Japanese consider the ascension of the latter Buddha, under the name of Guso-bosatz, as a memorable epocha; and it happened in the year 631, because they say that he lived only fifty-nine years, and he was born in the year 572. According to the Satrujaya-mahátmya, the translation into heaven of Guso-bosatz or Gaja-Vasishta,

that is to say, he who abides in the mortal frame of an elephant, and called in the above treatise 'Shi-hasti-s'ena, a compound nearly of the same import, happened three years, eight months and fifteen days before the time of the *Panchmárás*, or Muhamed and his four associates; that is to say, he died in November 617. But if we suppose with the *Paurán'ics*, that he lived sixty-six years, his ascension will fall in the year 638, according to the computation of the *Burmans* and *Siamese*. This Budd'ha was born in the year 500, and reigned sixty-six years, according to the *Cumáricà-c'han'da*, in some copies of which we read 62 and 64; but he appears to be the same with Gaja-Vasisht'a, both being represented as the last incarnation of Budd'ha; the *Japanese* having mistaken the era of his manifestation as a god, or his death, for that of his manifestation as a man.

Thus the Jainas in India. say, that their legislator died in the year 1036 B. C. which the divines of Tibet consider as the year of his birth.

The Christians of India, in the seventh century, were actuated by the same principles, and chose the supposed year of Christ's ascension for the first of their new era. They were at that time in India in the most profound ignorance, through the want of pastors, as we observed before; and their religion was a strange medley of the Christian, and of that of Budd'ha, which prevailed at that time in the Peninsula; insomuch, that M. Polo considered some of the Aryyas, in despite of their virtues, as idolaters. 'Sali-va'hana, or De'va-Tat, was considered as a brother or relation of Budd'ha.

Our blessed Saviour entered on his mission, when thirty years of age, like Bupp'ha; and like him, he was born of a virgin: the additional vears were introduced from their mistaking the ecclesiastical cycle of 84 years for the period of his life; and like them, the Christians made a point of reckoning their era from this supposed year of his ascension. This was not peculiar to the Hindus; the Christians of Egypt chose the various manifestations of Christ, during his ministry, and the different events of his life, in preference to that of his birth. According to the appendix to the Agni-purana, the era of SACA, Jor, SALAVA'HANA, was introduced into India, or began to prevail, in the year corresponding to that of Christ 676, exactly 135 years after the death of a certain VI-CRAMA'DITYA. The bloody wars between these two exalted characters, are supposed to have been only about their respective eras; and Vicra'ma-DITYA, in his dying moments, thought of nothing but his era; whilst it is the general opinion, that it began at his death, and of course he could not be the author of it. One would imagine that 'SA'LAVA'HANA's era would have begun the moment that he became a 'Saca, by putting to death another 'Saca, such as VICRAMA'DITYA was; but it happened otherwise: SA'LAVA'HANA thought no more of his own era, which was introducedafter his death, by his followers, or adherents in the Dekhin; for it never was used in any other part of India except Bengal,

It is therefore my humble opinion, that the Christian Era was introduced, and new modelled in India by the Christians, and the Aryya, or Sálava, Kings, on the decline of the Christian religion; and used by them and other Hindus in their intercourse with them.

It is supposed, that the *Bráhmens* are too proud to borrow any thing from their neighbours; but this is by no means the case; and whenever they are acquainted with the circumstance, they will most candidly acknowledge it, particularly astronomers and physicians.

After the conquests of ALEXANDER, and for many centuries after, there seems to have been an eager desire in India for foreign arts and sciences, curiosities, instruments of music, wine, and even beautiful damsels from Greece. According to Elian and Dio Chrysostom, the Hindus, as well as the Persians, had the works of Homer translated into their native languages: and Philostratus says, that they were well acquainted with the ancient heroes of Greece; and that they had statues made by Grecian artists. And this is very possible, as the Greeks of Bactriana were in possession of the Panjáb for more than a hundred and twenty years. The Kings of Magad'ha repeatedly wrote to the successors of Alexander for sophists or learned men, from Greece; and lately the famous JAYA-SINHA, Rája of Jaypur, wrote to the King of Portugal for learned men, and he had several sent to him; and the King of France sent him also an astronomer, P. Boudier. He had the elements of Euclid translated into Sanscrit, part of which fell into the hands of Mr. DAVIS. There, it is said, that this valuable book, originally written by Vis'vacarma, or TWASHTA, the artist god, had been lost for many thousand years; but was rescued from obscurity by the extrordinary efforts of JAYA-SINHA.

He had also another voluminous treatise, called the Sidd'hanta-Samratz

the west. The greatest part of it is now in my possession, and was procured at Jaypur by Colonel Collins, resident with Sindia. Mr. Davis informs me also, that at the same time the work of Theodosius, on the sphere was translated into Sanscrit. As these thefts are not recorded, the circumstance is hardly known now to any of the natives. Jaya-Sinh'a had also an extract made of all the constellations in Senex's celestial planisphere, and instead of 72 asterisms, he had 144 made out, by splitting all those that would admit of it into two or three new ones. The royal oak of course has found its way there, under the name of Mula-vricsha, the radical or primeval tree; and the Indian is called Sárendra, or the chief of archers; and as the Hindus have no altars, the constellation of that name has been converted into a footstool.

There is a famous astronomer, whose works, or at least part of them, are still extant, well known all over India, and declared to have been a foreigner, as implied by his name of Yavana'cha'ra, or the Grecian philosopher, and who lived, according to tradition, a little before the time of Muhamed. The Hindus give the name of Yavanas, or Greeks, to the inhabitants of the countries to the west of India, probably because the Greeks were once masters of Persia, and afterwards the seat of empire was fixed at Constantinople. From the account they give of him, it does not appear that he was a native of Greece, but only deeply skilled in the learning of the Greeks, having probably attended the university at Alexandria.

They say that he was a Bráhmen, born in Arabia, the inhabitants of which country were at that time followers of Brahma, and that the Sanscrit language was studied and well understood there by the learned. He came to India, where he resided for a long time, and in his old age he returned to his native country, in order to end his days at Môcshés-wara-sthán, or Mecca, in the performance of religious duties. Dr. Buchanan informs me, that he saw in the Dekhin several tribes of Jainas, who insisted that they came originally from Mecca or Arabia; and that they were expelled by Muhamed, or his successors.

There are certainly followers of Brahma' and Brahmens to this day in Arabia; and I am credibly informed, by natives of that country, that in the interior parts there are still many idolaters, whom they suppose to be followers of Brahma', or Hindus, as they call them. The greatest part of the old names of places in Arabia are either Sanscrit or Hindi: and Pliny mentions two celebrated islands on the southern coasts of Arabia, in which there were pillars with inscriptions in characters unknown, I suppose, to the Greek merchants who traded there: but these were probably Sanscrit; as one of these two islands was called Isura or Is'wara's island, and the other Rinnea, from the Sanscrit Hriniyá, or the island of the merciful goddess.

The Hindus claim Mecca as a place of worship belonging to them, and certainly with good reason. They say, that they were allowed to go and worship there for several centuries after the introduction of the religion of Muhamed; but were afterwards positively forbidden even to approach this sacred place.

I always conceived, that there was only one sage of the name of YAVANA'CHA'RYA, who was considered as a foreigner; but having consulted lately several learned astronomers, they informed me, that there were no less than five who are considered as foreigners. Their names are C'HATTA, C'HUTTA, ROMACA, HILLA'JA, and DISHANA; these, it is said, were Yavanas or Greeks. They certainly have very little resemblance with any Greek proper names, which we are acquainted with. Be this as it may, they are all supposed to have returned to their native country, with an intention to end their days at Mecca. From this circumstance, I suspect that they were Greeks from the famous university of Alexandria, and Mecca was at a very early period a famous place of worship. Guy Patín mentions a medal of Antoninus, in which it is called Moca the sacred, the inviolable, and using its own laws: and of this I took notice in my essay on SEMIRAMIS. The university at Alexandria was in a flourishing state, from the time of the Ptolemies to the fourth and fifth centuries, and even till the time of MUHAMED. Hindus often visited that famous city; for Pto-LEMY conversed with several in the third century, who appear to have been well-informed men.

These five foreign astronomers wrote many books, but few remain; and the reason, in the very words of my learned friends, is, that the substance of these treatises having been incorporated into more recent tracts, they were of course neglected, and afterwards lost. This acknowledgment from Bráhmens surprised me not a little; but I find that astronomers in general, and learned physicians, are much more tractable and conversable than the other Hindus.

Whatever may be our opinion about these five strangers, their names, and their country; yet from such an acknowledgement, and more particularly so from Hindus, we may rest assured, that there is some truth in it. The Hindus reckon three and twenty famous astronomers, eighteen of whom were natives of India; and the five others, foreigners. These they insist were natives of Arabia: and if so, they were called Yavanácháryas, not because they were of Grecian extraction, but because they were skilled in the learning of the Greeks. Indeed their names, or rather surnames, appear to be Arabic. Hallage, and Cathan are names well known to Arabian writers: and Ebn-Dissan is the name of a famous impostor born at Edessus. Of Rómaca or the Mle'ch'vata'ra, I took particular notice before, and Dishan is the name of Omar in several copies of Raghuna'tha's list; and it was he who first established the era of Muhamed in the year of Christ 638, and for this reason, they supposed him also to be a great astronomer, as well as Rómaca.

There is another astronomer, called Cangha, or Cangham, and Cangheh, whom the *Hindus* suppose to have been a foreigner; yet *Muselman* writers say, that he was a *Hindu*, and perhaps he lived on the western frontiers of *India*. By D'Herbelot he is called Cancah-al-Hindi, Kenker, Kencar, and Cangha. He wrote a treatise on astrology in *Hindi*, or rather *Sanscrit*, which was translated into *Arabic*, and is said to be extant. He is perhaps the same with Mangheh, who, according to D'Herbelot, made so conspicuous a figure at the court of Harun-al-Rashid, about the year 808, as a physician. The famous Dandamis or Dama-Damis, is unknown to the *Hindus*: but the *Muselmans* in *India* call him Tumtum, and D'Herbelot.

BELOT THOMTHOM-AL-HENDI. He is noticed by ABUL FAZIL in his preface to the third volume of the Ayin-Acberi. He was probably thus called, because he lived upon a Dumdum, or Dumdumá, which is a platform of earth, now more generally called a Chebootra or Tháná, from Sthána a stand.

As the name, or rather the surnames of these foreigners, are in great part derivable from the Arabic, and from no other language, it is not improbable, but that several, if not all of them, were from Arabia, whatever their religious tenets might have been. The first of them, according to tradition, lived a little before Muhamed, when the schools of Alexandria, and Berytus in Phænice, were still flourishing. From that period, learning beganto revive among the followers of Muhamed; and of course this learned man flourished from the latter end of the sixth, or from the beginning of the seventh century to the time of Al-Mamun, who reigned at Balkh in the tenth, and till the invasion of India by the Muselmans.

The Hindus, at an early period, were famous for their knowledge of astronomy and astrology. The latter is entirely grounded upon the former; and the accuracy of the decisions, and predictions, depends entirely upon the precision, with which the conjunctions, oppositions, and the various aspects of the heavenly bodies are ascertained. In the first century, Hindu astronomers were in high estimation and repute at Rome, and none but the richest men could afford to employ them. It appears, from Arrian on the authority of Megasthenes,* that in the time of Alexander, they had al-

^{*} ARRIAN de Indicis.

manacks, with predictions concerning the weather, and impending calamities, such as they have at present, but more particularly so in the Peninsula, STRABO says, that the Bráhmens professed astronomy; * and he extols, at the same time, the attention they paid to learning. Q. Curtius testifies, that they skilfully observed the motions of the heavenly bodies.† Eusebius, who lived in the third and the beginning of the fourth century, says that it was a Hindu, who first delineated schemes of the heavens, or the principal constellations. His name was ANDUBARIUS, and he was considered as the founder of astronomy in *India*, and was famous for his skill and wisdom. According to Eusebius, he lived soon after the flood, in the western parts of India; and this famous astronomer probably formed, and delineated the twenty-seven lunar mansions, which seem to be the exclusive property of the Hindus. The opinion of Eusebius, and the other learned authors whom I have mentioned, was certainly that of the age in which they lived; and STRABO says, that the notions of the Hindus concerning the universe, and the sphericity of the earth, were the same with those of the Greeks. They had a code of laws in the time of ALEXANDER, and they wrote upon a sort of paper; for thus I understand the words in ouddon dian nengothuis, upon cloth well beaten.† STRABO takes notice, that in his time some asserted, that the Hindus were acquainted with the use of letters, whilst others denied it. He adduced the above passage from NEARCHUS in proof of the former assertion;

^{*} Lib. 15.

⁺ Lib. 8.

¹ STRABO, lib. 15. p. 717.

but the passage against it from Megasthenes is by no means conclusive; and seems to me, on the contrary, to prove that they were acquainted with the use of letters; for it implies only that they used no writing in their courts of justice in camp, where every thing was settled in a summary way; and it is even so to this day. Besides, says our author, such is the probity of the *Hindus*, that all the time he was in the camp of Sandrocuptos, which consisted of 400,000 men, none but petty thefts were ever brought before these courts, and they (the judges) even could not write. Under such circumstances, neither any code of laws, not much learning, or any writing, were necessary; common sense and integrity were the only requisites on the part of the judges.*

During the first centuries of the Christian Era, the Hindus were very fond of travelling. Their Kings sent frequent embassies to the Roman and Greek Emperors: and some of these Embassadors went as far as Spain. Others visited Alexandria and Egypt, where Ptolemy, in the third century, saw them, and conversed with them. Some of these Embassadors had long conferences, at Babylon, or rather Seleucia, with the famous Bardesanes: and pilgrimages to the St'hán of Mahá-Bhagá, now Mábog, or Bambyke in Syria, were very common, according to Lucian, as cited by the authors of the ancient Universal History. Even to this day, pilgrims from India go to Persia, Georgia, Moscow, and Arabia, Bootan, China, and even Siberia.

We are not to suppose, that there never was any intercourse between

[•] STRABO, lib. 15. p. 609.

India and the more western countries of the old continent. There were diviners and soothsayers in Syria and Palestine, from beyond the east, that is to say from beyond Persia, and of course from India, 700 years before Christ, according to Isaiah; and these, long after, found their way even to Rome; and, according to some, it was a Hindu, that had been shipwrecked in the Red Sea, who first pointed out the way to India by sea.* Xerxes, when he invaded Greece in the year 480 B. C. had a large body of Hindus with him, whose officers were men of respectability, and there is little doubt but that they had Bráhmens with them.

Three hundred years before our era, the Carthaginians had numerous elephants from India, and their mahots or drivers were Hindus. They seldom used the African elephants, which, says PLINY, were timorous, and could not bear the sight of the elephants from India.† The Carthaginians had no proper name for an elephant, and from the mahots they adopted the Hindu name Gaja, which they pronounced Gaisa. Till that time, they, as well as the Phænicians their ancestors, called them Elaph or Alpha, beeves or oxen:‡ and the Romans, when they saw Pyrrhus's elephants, called them also Lucæ Boves, and this was in the year 280 B. C.

POLYBIUS | informs us, that in the year answering to 251 B. C. METELLUS

^{*} STRABO, p. 98 and 100.

[†] SALMAS. Exercitat. Plinian. p. 217.

[†] HESYCH. under the word Alpha.

[|] POLYB. Lib. 1. p. 42. and Lib. 8. p. 200.

defeated Asdrubal in Sicily, killed six and twenty of his elephants, took one hundred and four, and sent them to Rome, with their drivers, who were Hindus. According to the same author, when Hannibal crossed the Rhone 218 years B. C. the drivers of his elephants were also Hindus; and after this period, we find a Hindi word for an elephant introduced into Italy; for till that time, they called them large oxen. This name was Barrus, or Baro, as it is written by Isidorus,* who says, that it was a Hindu denomination: Baro and Baronem in the objective case, are from the Sanscrit Báran'a and Báran'am. From Barrus or Baro, the Latins made barritus, to express a noise like that made by an elephant, and also the verb barrire; and probably the word Ebur is derived from it.

When Manlius marched, at the head of an army, through Caria and Pamphylia, 189 years B. C. he came to the banks of a river, near the fort of Thabusion, called the river Indus, or of the Hindu; from a Hindu mahot, who fell into it from his elephant, and was drowned; † and this was on the borders of the greater Phrygia. Sometime before this, we read in Alciphron's letters, that Hindus of both sexes, in the capacity of servants, were not uncommon in Greece. Several emigrations took place from India, and we find some tribes of Hindus settled in Colchis, where are Hindus to this day; and Hesychius asserts, that the Sindi of Thrace came originally from India. † When Q. Metellus Celer was proconsul of Gaul, 59

^{*} ISIDOR. de origin.

[†] Tit. liv. lib. xxxv111. C. 14.

¹ BRYANT'S Mythol. Vol. 3d. p. 217.

years B. C. the famous Ariovist king of the Suevi made, a present to him of some Hindus, who had been shipwrecked on the German shores. were merchants, who had ventured thus far from their native country.* In the Vrihat-cathá we read of several Hindu merchants, who visited the Sacred Isles in the west, and being shipwrecked, they were made slaves; and some of them were so fortunate, as to obtain their liberty, and to revisit their native country. It is declared there, that they went a great part of the way by land; and then embarked at a place called Itanca: † another harbour is mentioned also under the name of Pauta-pur, and this subject I shall resume when I come to treat of the Sacred Isles. Strahlenberg saw a Hindu at Tobolsk, who went from India to that place, through China. Bell saw another Hindu from Madras, on the banks of the Argoné; and Mr. Duncan, Governor of Bombay, introduced another to my acquaintance, who had been there also. The distance from the Indus to England is one fourth less than that from Madras to Tobolsk through China; and the embassadors of Porus travelled as far as Spain 24 years B. C. The constant embassies, sent from India to the Emperors of Rome and Constantinople, are well known to the learned, even as late as the sixth century; but in the seventh, the growing power of the Muhamedans became an insurmountable obstacle to any further intercourse. Besides, the present state of society, manners and politics in the west, make it impossible for Hindu pilgrims to travel through Europe. They would be stopped at every step, and occa-

^{*} Cornel. Nepos apud PLIN. SUETON. CICERO in Vatin. c. 10. PLUTARCH, &c.

[†] Vrihat-cat'ha Lambaca or Section the 5th called also Chaturdarica.

[†] STRAHLENBERG p. 103. Asiat. Researches, vol. vi. 483.

sionally confined; and instead of alms, they would receive insults only from the lower classes.

But the most famous of all, was the embassy sent by Porus to Augustus: the embassadors went to Spain, where he was at that time, 24 years B. C. according to Orosius; and the purport of their commission was to enter into an alliance with him. But, as some time was spent before any progress could be made in this affair, other embassadors were sent by Porus, some years after, when they found the Emperor at Samos. This Porus in his letter boasted, that he was lord paramount over 600 kings; and, in the supplement to the Bhavishya-purána, it is declared, that no less than 800 kings were the vassals of the famous Vicrama'ditya. With them were also embassadors from Pandion, king of the southern parts of the Peninsula; and they had in their train a Bráhmen, a native of Brigugosha (now Baroach) called Chadga the Sarmana, Zarmanos Chagas. He chose to remain behind, and attached himself to Augustus, in whose service he remained for some time, in the capacity, it seems, of an augur or soothsayer.*

When the Emperor was at Athens, C'HAD'GA the Sarmana caused himself to be initiated into the sacred mysteries, though it was not the usual time; and soon after he voluntarily ended his days on a funeral pile. CALANUS followed ALEXANDER of his own accord, and ascended likewise the funeral pile at Pasargada. There was even a large detachment of Hindus,

^{*}STRABO. DIO. PLUTARCH and NICOL. DAMASCEN.

who followed Alexander into Persia, and which we find on the borders of Media, with Eumenes, eight years after the death of the former. It was commanded by the brave Keteus, probably Ketu, or the fiery meteor of war; and there was certainly little, or no compulsion used by the Greeks, for they took even their wives and families along with them. Keteus died fighting valiantly, and his two wives insisted upon burning themselves with the dead body; but it was found that the eldest was with child, and therefore she was prevented from following her husband. The youngest went triumphantly, and was led by her brother, and other relatives, and servants, to the funeral pile.*

CLAUDIUS received also an embassy from a king of Ceylon: and when Trajan was marching against the Parthians in the year 103, some princes of India sent embassadors to him, requesting him to settle some disputes between them and their neighbours, probably the Parthians. It is remarkable, that during this expedition, Trajan was constantly supplied with oysters from Great Britain; and which were preserved fresh, by a particular process, discovered by one of the first epicures of the age. There were embassadors from India sent to Antoninus Pius, to Diocletian, and Maximian; to Theodosius, Heraclius, and Justinian; and we read † of two Hindu kings, putting themselves under the protection of Diocletian and Maximian, and their names were Gennobon and Esatec'h. In the year 274, Aurelian took Palmyra, and made Queen Zenobia

^{*} Diopor. Sic. lib. xix. C. 2.

⁺ Anc. Univ. Hist. vol. xviji. p. 78.

prisoner. There he found a body of Hindus, whom he carried to Rome, to grace his triumph. Damascius, who was contemporary with Justinian, in his life of Isidorus, relates several curious anecdotes of Severus, a Roman, but by birth an African, and who lived in the time of the Emperor Anthemius. Severus was a philosopher of most austere manners, and great learning, and fond of the society of learned men. After the death of that Emperor in 473, he retired to Alexandria, where he received at his house several Bráhmens from India, and whom he treated with the greatest hospitality and respect. Dates and rice were their food, and water their beverage, and they shewed not the least curiosity, refusing to go and see the most superb fabrics and palaces, with which that famous city was adorned.*

It is remarkable, that ancient travellers make no mention of the monstrous statues of the Hindus. The historians of Alexander take notice of the Sibæ, carrying among their standards the image of Hercules, whoever he was. The Suraseni round Muttra on the Jumná, had also a statue of Hercules,† or Bala-deva. Philostratus takes notice of some figures cut out of the rock beyond Hardwar; but these statues had nothing monstrous in them, no more than those made by Grecian artists in the Panjab, according to the same author. It is not improbable then, that at that time the Hindus had not yet attempted to represent, either in stone or wood, their monstrous deities. They were first introduced to our knowledge by

^{*} Photii Bibliotheca, p. 1040 and SUIDAS v. SEVERUS.

[†] Asiat. Researches, vol. v. p. 294.

Jews, according to CLAUDIAN, who wrote in the fifth century, and who says:

Jam frugibus aptum Æquor, et assuetum sylvis delphina videbo: Jam cochleis homines junctos, et quidquid inane Nutrit JUDAICIS, quæ pingitur *India*, velis.

From this it appears, that in his time the Romans adorned their houses with tapestries, worked by Jews, and representing all the wild and monstrous figures of Hindu mythology, such as men growing out of shells. This is an obvious allusion to 'Sanc'ha'sura, and his tribe living in shells, and peeping out of them in 'Shanc'ha-dwipa or Zangh-Bar.

In the year 529, a king of the Hemiarites in Arabia, called AL-MONDAR, a general name for the kings of that tribe, and generally residing at Hirah, invaded Syria; and the Roman exarchs, or Governors, were obliged to fly to India for shelter, and certainly by sea, as the Romans were at war with the Persians,* and probably they found no other means of escaping, but by getting on board of some ship just going to sail for India.

There were at Rome augurs, and diviners from all nations, but mostly from Chaldea. There were some from Armenia, Egypt, and even a few Jews, and particularly women from that nation. There were also astrologers, says Juvenal,† from Phrygia and India; and none but very rich people employed these, and this was about the middle of the first

^{*} Du Fresnoy Chronolog. A. D. 529.

⁴ Sat. vi. v. 584 and 549.

century. There were many Hindus at Alexandria, according to Ptolemy, who lived in the beginning of the third century. The inhabitants of Europe, at an early period, did by no means show so much readiness in leaving their native homes to visit distant countries, and particularly India. We are told that Pythagoras and Democritus visited the Hindu sages; but these accounts are delivered in too vague a manner, to deserve any credit.

The first European upon record, who visited India, is SCYLAX, a Greek and experienced seaman, sent by Darius Hystaspes above 500 years B. C. to explore India. For this purpose he went to Caspatyrus or Caspapyrus, now Coshabpoor upon the Hydaspes, called also Indus, and by the Hindus the lesser Sindhu or Sindh. Having made the necessary arrangements, he sailed down a large river, which flowed toward the east, and then he entered the ocean, and returned by the way of the Red Sea, and sailed to the bottom of it, where his voyage ended, after a circumnavigation, both on the river and by sea, of two and thirty months. This river is unfortunately called the Indus by Herodotus; otherwise, from the particulars, such as the course of that river, and the time that his circumnavigation lasted, one would suppose that it was the Ganges; and indeed many learned men are of that opinion.

The next European who visited India was the philosopher Phædon, about 430 years B. C. but it was not an act of his own. He is said to have been an Elean, probably because he was a native of Elea in the lesser Asia. It is recorded of him, that he was taken, and detained by Indians, and afterwards sold by them as a slave. It is probable, that he had been sold first to

some Persian nobleman, sometime after appointed to the government of some district in India, where Phædon was carried away by a party of Hindus. Be this as it may, we find him afterwards at Athens, as a slave again, to a man, who kept women and handsome young men, for the purpose of prostitution. He was redeemed by Alcibiades at the request of Socrates, whose disciple he became. He founded the Eliac school, called Eretrian afterwards, from its having been transferred to Eretria in Eubæa, by Menedemus his successor.*

There was a regular trade carried on, to India, from the accession of the Ptolemies to the throne of Egypt, to the conquest of that country by the Romans, which did not cease till the middle of the seventh century, when the growing power of the Muhamedans put an insurmountable obstacle to a regular intercourse. The Greeks under the Ptolemies, had settlements at Callian near Bombay; but they were driven out of them by the native kings. It seems also from the Peutingerian Tables, that the Romans had a considerable settlement near Muziris now Mirjee, where they had erected a temple in honour of Augustus;† and they had also two cohorts, or 1200 men, to protect their trade. The imports and exports were the same as they are to this day, as it appears from Arrian's Periplus, and the Justinian code.

The Greek Kings of Bactriana ruled over all the countries on the banks of the Indus, even as far as Sirhind, during a period of 129 years, that

^{*} See SUIDAS, HESYCHIUS de illustrib; and LAERTIUS.

[†] See Peutingerian Tables,

is to say from the year 255 to 126 B. C. Even some of them were in possession of the western parts of the Gangetic provinces: and Demetrius is mentioned as one of them; and according to Sig. Bayer, he never was King of Bactriana or Balk, but of some inland part of India, extending beyond the Ganges, about the year 195 B. C. According to Strabo, his predecessor Menander conquered the countries to the east of the Hypanis, as far as the Jumná.* His empire extended from Pattalena, to Zizerus, which I take to be the small, but famous lake called Jid-jer, or the spring of Jid, noticed by Ctesias, under the name of Sid, and a little to the westward of the Jumná and Dilli.†

To these conquests Demetrius added some maritime countries to the eastward of *Patalene*, such as *Sigertis*, and the kingdom of *Tessariostus*, now the countries of *Cachha* and *Gujjarat*, as I shall show in the appendix.

There are now numerous *Hindus* roving all over *Arabia* and *Persia*, as far as *Astrachan*, or settled in some places of trade for a few years only, when they return to *India.*‡ For I take no notice here of numerous tribes of *Hindus*, who are considered as natives of *Persia*, *Turan* and *Colchis* or *Georgia*: they are called *Hindi* all over these countries, and have been settled there from time immemorial.§

^{*} STRABO; Lib. 11. p. 516.

[†] See MAURICE's Modern History of Hindoston, vol. 1. p. 95. It is called erroneously Bhedar in the Ayin-Acberi, vol. 2. p. 107.

[†] FORSTER'S Travels, vol. 2.

[§] According to the late Nabob MEHDI-ALI-KHAN, a native of Mesched. See Essay on the origin of Mecca. Asiatic Researches, vol. 5.

From the Malabar Coast they go to Mosambique, where they have agents, who generally reside there seven or eight years; and Strahlenberg takes notice of a merchant from the Malabar Coast, at Astrachan.* From Surat and Gujjar'át, they go to Mascat and other trading places in Arabia, where Bráhmens are to be found also, according to Niebuhr. Arrian in his Periplus says, that the inhabitants of the island of Dioscoridis (now Socotora,) consisted of Arabs and Hindus, with a few Greeks, settled there on account of the trade to India. The famous Pra'npuri told me, that when he was at Baharein on the Persian Gulf, he was informed by the Hindus, whom he found settled there, that they used to go formerly to Egypt, where they had houses of agency, but that they had left off going there for about two or three generations.

This shows, that there was between the Greeks, Romans, Carthaginians and the Hindus, a constant and reciprocal intercourse (which is by no means the case now) for a period of 1200 years at least: and to which nothing, but the overgrowing power of the Muselmans, could put a stop. In visiting the sages of Babylonia and Egypt, the Hindus must have been greatly surprised, and their vanity humbled, when they heard them talk of their remote antiquity. Then, and not before, in my opinion, they resolved not to be behind hand with any of them; and certainly they have succeeded wonderfully. Neither the Greeks and Romans, nor the Turdetani, a Galic nation, though settled in Spain, according to Strabo, carried history, and the beginning of things, beyond

[•] P. 333.

a period of 6000 years, exactly like the Jews, and Hindus formerly, according to MEGASTHENES. The Gothic tribes entertained also the same notions, as appears from the cosmogony of Orpheus, who was a Goth.*

The Hindus had the system of the Yugas long before; but this was not peculiar to them, for it prevailed all over the west, and Hesiod, who lived between 900 and 1000 years before Christ, declares that the Cali-yuga was just beginning; and the Jainas assert that it began about that time. Though the Yugas are of a very great antiquity all over the world, yet the Hindus did not think of stretching their duration to such an enormous length, till a period comparatively modern; and the Yugas in the west were also the component of their grand Calpa, which consisted equally of 12,000 years, but with this difference, that in the west these were considered as natural years, which is not the case in the east, at least now.

The first time we heard, in the west, of this extravagant system of chronology, was about the middle of the ninth century; when we were informed by Abu-Mazar, a famous astronomer, who lived at the court of Al-Mamun at Balkh, that the Hindus reckoned from the flood or the beginning of the Cali-yuga, to the Hejra, 720,634,442,715 days, or 3725 years.

(1)

There is obviously a mistake, originating either with the transcriber or translator: but it may be easily rectified. There is exactly that number

^{*} See GESNER's notes on the fragments of ORPHEUS, also FABRICIUS Cod. Pseudepigr.

of years, from the beginning of the Cali-yuga to the Hejra: but that immense number of days are reckoned from the creation to the Cali-yuga, according to Brahma-gupta's system. Mr. Davis, after reading this passage in my manuscript, kindly undertook to examine it more particularly, and I beg leave to refer to his learned note on the subject, in the appendix at the end of the essay on Vicrama'ditya and Salivahana.*

Till that time, the extravagant numbers of the Hindus were unknown to the Greeks and Romans, with whom they kept up a constant intercourse. That the Hindus concealed the whole from them, is inadmissible: for it is natural to suppose, that they were equally vain with the rest of mankind. We are well acquainted with the pretensions of the Egyptians and Chaldeans to antiquity: and surely they did not take the trouble of inventing fables to conceal them. On the contrary, MEGASTHENES, a man of no ordinary abilities, t who had spent the greatest part of his life in India, in a public character, and was well acquainted with the chronological systems of the Egyptians, Chaldeans and Jews, made particular inquiries into their history, and declares, according to CLEMENS of Alexandria, that the Hindus and Jews were the only people, who had a true idea of the creation of the world, and the beginning of things: and we learn from him, that the history of the Hindus did not go back above 5042 years, from the invasion of *India* by ALEXANDER. Manuscripts differ; some have 5042, or 6042: others have 5402-years, and three months; for he calculated even the months; but the difference is immaterial in the present case.

^{*} As. Res. v. 9. p. 242.

⁷ See Asiatic Researches, vol. 5. p. 290.

This period of the Hindus was adopted afterwards by the Persians, or was common to both: and the latter reckoned, from the creation to the era of Melic-shah, in the year 1079 of Christ, 6,586 years;* that is, they placed the creation 5507 years before Christ. It appears also from George of Trebizond, that the Persians reckoned, from the flood to the year of Christ 632, or era of Yezdejird, 3,735 years, ten months, and twenty-three days, conformably to the ideas of Abu-mazar: and this is again the period of the Cali-yuga of the Hindus. From Alexander's entering India, to the same era of Melic-shah, there are 1408 years, which deducted from 6,586, there remains 5178; and this I believe was originally the true reading in Megasthenes's account of India. Be this as it may, the difference, relatively speaking, is not very considerable, and is immaterial in the present case.

Christ was the son of a carpenter, and himself a carpenter, or Tacshaca in Sanscrit. The Persians called him a Peishé-cara, handicraftman and tradesman. In the Calpa-druma-Calicá, a treatise of the Jainas, and in my possession, Saíla-vaíhana, called by the Hindus a Tacshaca, and said to be also the son of a Tacshaca, Tashítá, or Twashítá, is declared to have been a Sríavaca or Sávaca, a tradesman: and in the western parts of India, as in Gurjaríát, all banyans and tradesmen are called Sávacas. The words of the Calicá are, "Saílavaíhana Námá Rájá Jaina; Parama Srávaca-pati. The King called Saílavaíhana was a Jaina, and the lord and master of the Sríavacas," or Sábacas, as more generally written and pronounced.

^{*} BAILLI'S Astronom. Ind. p 251.

Even the name of 'Sa'li-va'han, 'Sa'liban, and 'Sa'lba'n, as he is called in the spoken dialects, seems to be of Persian and Arabic origin, as well as Peisheh-cár, the name of his followers. Salib, or Sulib, signifies a stake, a cross, a gibbet, the Roman Furca; like the Greek Στουρος, Sálib or Sálb signifies also crucified, and in the plural form, it becomes Sálub, and Sálbán. Ashab-al-Sálib, means the Christians in Arabic, that is to say, the followers of the crucified. The best Sanscrit expression for this is Suliva, Sálava, or Salwa in a derivative form, and these are indifferently pronounced Sálaba, or Salba, and in the plural number Sálabán, and Sálban. In the Cumáricá-c'handa, these Sálavas, or Salbans, are mentioned, in the same page with 'SACA, or 'SA'LA-VA'HANA, and as existing at the time this Puran'a was written. The copy of that section of the Scandapurán'a in my possession, was written about 230 years ago in Gurjar'át: and the writer or transcriber, well knowing, that 'Sávaca was a title of 'SACA, or 'SA'LIVA'HANA, wrote first 'Sávaca, instead of 'Saca; but recollecting himself, and finding that there was a redundant syllable in the verse, he drew two small strokes with the pen across the middle syllable, showing, that it was to be left out, and the whole word to be read Saca. In the Lucknow copies of this section, no mention is made of Saca, and the whole verse is omitted.

The copies from Chitra-cúta, have the whole verse; but the name of Saca is variously written, sometimes Sacra, Sraca, &c. These readings are obviously erroneous. There were no other copies of that section at Benares but those procured from Chitra-cúta, and Lucknow, till I was lately presented with a neat copy 230 years old, from Gujarát, by

by a Pandit of that country. The Lucknow copies are tolerably accurate; but those from Chitra-cûta are miserably mangled, through the carelessness of transcribers. The passage relating to 'Saca, is in the following words: Tatah trishu sahasréshu 'sate chápyadhicéshu cha; 'Sacó náma bhavishyas'cha yótidáridra háracah: and whether we read 'Saca or 'Savaca, it points to the same individual.

The idea that Saliva'hana was borne on a tree, cross, or furca, they might have borrowed from the Manicheans, who represented Christ stretched upon a tree. Váhana, báhana, and váha or báha, are nouns derived from the verb vah, veho, to carry; and used both in an active and passive sense. Thus Havyaváhana is one of the titles of Agni, or fire. Indra is called Mégha-váhana, or the cloud borne; Gand'ha-váha is the wind, from its being the vehicle of perfumes. The clouds loaded with water are called Vári-váha. Thus 'Sál-bah, Hál-bah, 'Sál-báhana, &c. may signify either he who carries his cross, or who was borne, or exalted upon the cross. Crucifer is one of the titles of Christ, perfectly answering to 'Sála-baha.

The Hindus are very fond of forms or emanations, which they consider to be the same with the original from which those emanations sprang; and disciples are very often considered as so many forms of their masters. It is then very possible, that they should have considered the Apostle and disciple, who first preached the Gospel in India, as a form of Christ, or as Christ himself, after several centuries had elapsed; and thus possibly have mistaken the year of the death of the form, or disciple, for that of his principal. Now some of the Apostles lived to a great age; and St. Thomas,

for instance, is supposed to have lived seventy-three years, and to have suffered martyrdom about the seventy-fourth or seventy-fifth year of the Christian Era.

The year of the death of Vicrama'rca, and that of the manifestation of Sa'l-Ba'han, are acknowledged to be but one and the same; and they are obviously so, according to the Cumáricá-c'han'da, that remarkable year was the 3101st of the Cali-yuga, and the first of the Christian Era, thus coinciding also with the Samaritan text, which is a remarkable circumstance.

Some learned *Pandits*, from the western parts of *India*, are of opinion, that the era of Vicrama'ditya was originally reckoned from the first year of his reign, in the year 3044; and that, after a reign of fifty-six years, his death happened in the year 3101.

This was certainly the opinion of the author of the Cumaricá-c'hand'a, and of the Pandits who assisted ABUL FAZIL, who says, in his summary of the history of the Kings of Málava, that VICRAMA'DITYA's era began the first year of his reign; and this makes this legend more consistent and probable.

In the Vrihat-Cathá, 'Saliva'hana is called Nrisinha, or the man-lion, answering to the lion of the tribe of Juda; and one of the forms of Budd'ha is called Nri-sinha, both by the Paurán'ics and the Baudd'has. 'Sacti-sinha, or the energetic lion, is also the name of 'Sa'liva'hana in the appendix to

the Agni-purán'a. According to the Vrihat-cathá, VICRAMA'DITVA marched from his capital city Pátalíputra, or Patna, to wage war against NRĭ-sinha, King of Pratisht'hána.

VI. The cross, though not an object of worship among the Baudd'has, is a favourite emblem and device with them. It is exactly the cross of the Manicheans, with leaves and flowers springing from it, and placed upon a mount Calvary, as among the Roman Catholics. They represent it various ways; but the shaft with the cross bar, and the Calvary remain the same. The tree of life and knowledge, or the Jambu tree, in their maps of the world, is always represented in the shape of a Manichean cross, eighty-four Yójanas (answering to the eighty-four years of the life of him who was exalted upon the cross), or 423 miles high, including the three steps of the Calvary.

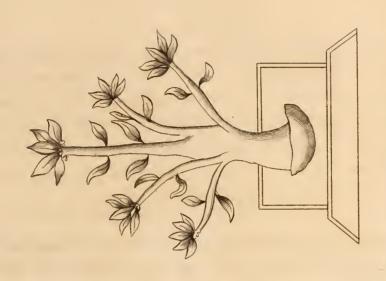
This cross, putting forth leaves and flowers, (and fruit also, as I am told) is called the divine tree, the tree of the gods, the tree of life and knowledge, and productive of whatever is good and desirable, and is placed in the terrestrial *Paradise*. Agaptus, according to Photius,* maintained, that this divine tree in *Paradise*, was Christ himself. In their delineations of the heavens, the globe of the earth is filled up with this cross and its *Calvary*. The divines of *Tibet* place it to the S. W. of *Meru*, towards the source of the *Ganges*. The *Manicheans* always represented Christ crucified upon a tree among the foliage. The *Christians* of *India*, and of St. Thomas,

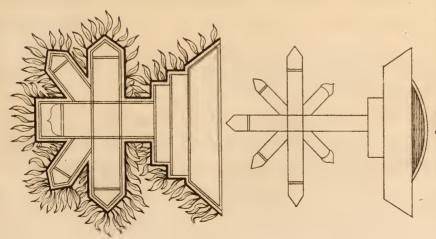
^{*} Phot. Biblioth. p. 403.

though they did not admit of images, still entertained the greatest veneration for the cross. They placed it on a Calvary, in public places, and at the meeting of cross roads; and it is said, that even the heathen Hindus in these parts paid also great regard to it. I have annexed the drawings of two crosses, from a book entitled the Cshétra-samása, lately given to me by a learned Baudd'ha, who is visiting the holy places in the countries bordering upon the Ganges.* There are various representations of this mystical symbol, which my friend the Jati could not explain to me; but says, that the shaft and the two arms of the cross remain invariably the same, and that the Calvary is sometimes omitted. It becomes then a cross, with four points, sometimes altered into a cross cramponné, as used in heraldry.

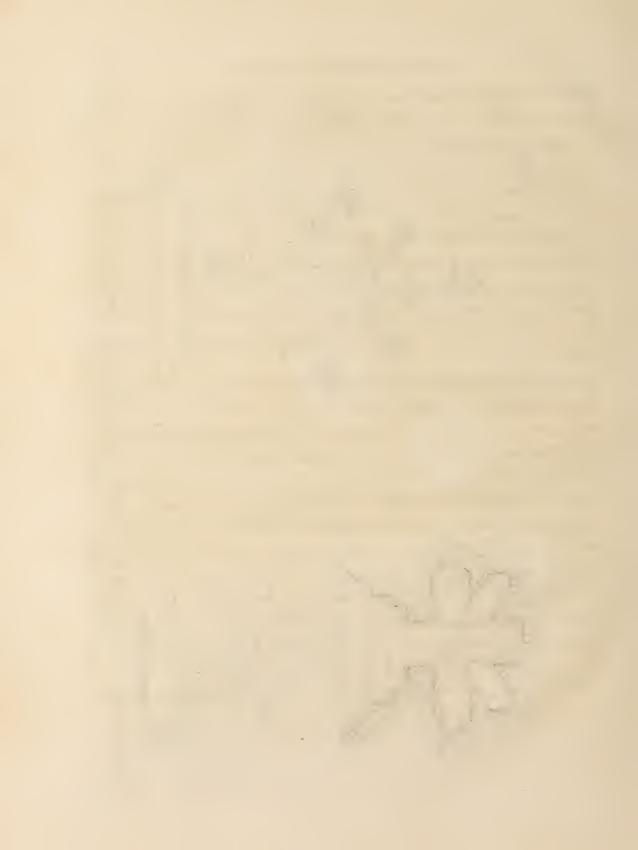
In the second figure there are two instruments depicted, the meaning of which my learned friend, the Jati, could not explain. Neither did he know what they were intended to represent; but, says he, they look like two spears: and indeed they look very much like the spear and reed, often represented with the cross. The third figure represents the same tree, but somewhat nearer to its natural shape. When it is represented as a trunk without branches, as in Japan, it is then said to be the seat of the supreme One. When two arms are added, as in our cross, the Trimurti is said to be seated there. When with five branches, the five Sugats, or grand forms of Budd'ha, are said to reside upon them. Be this as it may, I cannot believe the resemblance of this cross and Calvary, with the sign of our redemption, to be merely accidental. I have written this account of the progress of

^{*} Plate 2.





The CALPA-VRICSHA of the BAUDD'HAS which is the same with the CROSS of the MANICHEANS.



the Christian religion in India, with the impartiality of an historian, fully persuaded that our holy religion cannot possibly receive any additional lustre from it.

The word Mléch'ha in Sanscrit, does not signify literally a foreigner; but it is generally understood in that sense by the Pauránics, when announcing, in a prophetical style, the different powers who were to rule over India. Hear now, says the author of the Vishnu-purána, hear now what will come to pass in these times: powerful Kings among the 'Aryya-Mléch'has will appear; they will subvert the reigning religion, spoil and deceive the Prajás, or the people.

In the *Bhágavata*, they are called *Abrahmavar-chasah* in the plural, and *Abrahmavarcháh* in the singular; because, as they understood not the fundamental tenets of their own religion, through their spiritual blindness, and the hardness of their hearts, they gave it up to embrace a new one.

In the Brahmán'da we read, then will come the Aryya-Mléch'has, who will seduce the people; they will be proud, and at the same time distrustful, as if constantly alarmed.

In the Váyu-purána it is declared, that generations of Kings will rise, and set like the sun. Then will come the 'Aryya-Mléch'has, who will forsake the D'harma, religious creed, Carma worship, Tírt'ha the places of pilgrimage of their ancestors; they will seduce the people with their new doctrine, and will grow worse and worse every day. After them Sarva Mléch'ha, all sorts of foreign and impure tribes will overrun the country.

Such is the character given of these good 'Aryyas, called Avariiam, and Abraiam, as well as their Apostle, even as low as the times of M Polo in the 13th century. From Abáryyam, the Pauránics probably made A-Brahma, in order to shew their contempt of them, but more particularly in the latter times, when they grew worse and worse; and M. Polo speaks of some of the Abraiam, or Abramiam, nearly in the same terms. Yet in his time the denomination of Avariiam, in Sanscrit Aváryyam, and Abáryyam, was applied to them; and he was told that it signified good and pious men.

I had, for a long time past, particularly inquired from the Baudd'has whether they knew any thing of the wars of Budd'ha with Tevetat;* but I was always answered in the negative. It was my fault in some measure; I did not make use of the other synonymous names of that enemy of the religion of Budd'ha. I mentioned before, that I supposed that Tevetat was a corruption from De'va-Tashta, synonymous with De'va-Twashta', or De'va-Silpí, the divine artist, or carpenter, who is more generally known under the name of Visva-carma, or the universal artist. Under this last appellation, Te'vetat is known to them. Soon after a learned Jati presented me with a book called the Budd'ha-charitra, with leave to take a copy, in which the wars of Budd'ha, with Vis'va-carma, or De'va-Twasht'a', are related. It is a most voluminous work, and still it is incomplete, and the seat of war was in India.

In the Lalita vistára purána, which was brought by Major Knox from Népál, the name of Budd'ha's kinsman and rival is DE'VADATTA (answering to Deodatus). It is probable, that LALOUBERE'S Tevetat is a corruption of the name of DE'VADATTA. H. T. C.

ESSAY VI.

PART I .- CHAPTER 1.

Of the two Tri-Cu't'A'D'ri, or Mountains with three Peaks; one in the N. W. and the other in the S. E. Quarters of the Old Continent.

I. TRI-CUTAD'RI, the mountain (Adri) with three peaks (Tri-Cúta,) answers to Trivorpupos and Trivoxpus in Greek: for in that language ¿xrou signifies properly a peak, summit, and implicitly a headland, or promontory. Polyknus calls Mount Méru or Meros, Tri-coryphus: it is true, that he bestows improperly that epithet on Mount Méru near Cabul, which is inadmissible. Méru, with its three peaks on the summit, and its seven steps, includes and encompasses really the whole world, according to the notions of the Hindus and other nations, previously to their being acquainted with the globular shape of the earth. I mentioned in the first part, that the Jews were acquainted with the seven stages, Zones or Dwipas of the Hindus; but I have since discovered a curious passage from the Zohar-Manassé on the creation, as cited by Basnage, in his history of the Jews.* "There are, says the author, "seven earths, whereof one is higher than the other; for the holy-land is situated upon the highest earth, and Mount Moriah (or Méru) is in the middle of that holy land. This is the hill of God, so often

^{*} See English Translation, p. 247.

mentioned in the Old Testament, the mount of the congregation, where the mighty King sits in the sides of the north, according to Isaiah, and there is the city of our God."* The Méru of the Hindus has the name of Sabhá, or the congregation, and the gods are seated upon it in the sides of the north. There is the holy city of Bráhmá-puri, where resides Brahma' with his court, in the most pure and holy land of Ilávratta.

Thus Méru is the worldly temple of the supreme being, in an embodied state, and of the Tri-Mu'rti, or sacred Triad, which resides on its summit, either in a single, or three-fold temple, or rather in both: for it is all one, as they are one and three. They are three, only with regard to men involved in the gloom of worldly illusion; but to men who have emerged out of it, they are but one; and their threefold temple, and mountain with its three peaks, become one equally. Mythologists in the west called the world, or Méru, with its appendages, the temple of God, according to Macrobius.

Hence this most sacred temple of the supreme being, is generally typified by a cone or pyramid, with either a single chapel on its summit, or with three; either with, or without steps.

This worldly temple is also considered, by the followers of Buddhan, as the tomb of the son of the spirit of heaven, whom I conceive to be the first man, re-emerging in every Calpa, or the first lawgiver, often confounded with the first man. His bones, or limbs were scat-

^{*} Isaiah, c. 14. v. 13. Psalm 48, &c.

ZAGREUS. To collect them was the first duty of his descendants and followers, and then to entomb them. Out of filial piety, the remembrance of this mournful search was yearly kept up by a fictitious one, with all possible marks of grief and sorrow, till a priest came and announced, that the sacred relics were at last found. This is practised to this day by several Tartarian tribes of the religion of Budd'ha; and the expression of the bones of the son of the spirit of heaven is peculiar to the Chinese, and some tribes in Tartary.

The Baudd'hists in this country are so close, reserved, and ignorant, in general, that hardly any information can be obtained on this subject. Besides, they acknowledge that it is so awful a theme, that they really avoid to make it the subject of conversation. They confess that the pyramids, in which the sacred relics are deposited, be their shape what it will, are an imitation of the worldly temple of the supreme being, and which is really the tomb of the first of his embodied forms; or of his son, in the language of the Chinese, Tartars, and of the Greeks also, who were little acquainted with the system of emanations and incarnations. also declare, that many of these pyramids do not really contain the bones of the Thácur, or Lord: and though they are to be supposed, and asserted to contain them, the real place where they are deposited, should remain unknown, in order to prevent profanation; exactly like the various tombs of Osiris. For this reason, the sacred relics, instead of being deposited in the pyramid, are always placed in a small vault deep under ground, at some distance from it, as at Sárnátha, near Benares.

This monument is about fifty feet high, of a cylindrical form, with its top shaped like a dome. Similar monuments, but never more than three or four feet high, are often erected by Hindus, upon the spot where a married woman burned herself with her husband. These monuments are in general called Sati; and the enormous one at Sárnáth is a sort of Sati over the bones of Budd'ha. According to tradition, it was erected over the ashes of those who fell there in battle, in the invasion of the Muselmans. But this is impossible; as this monument is the chief and principal piece of that sacred fabric, which was begun many years before the said invasion. The only part that was finished is the tomb of Budd'ha; all the others, which were intended for the splendor of the place, and the convenience of the royal inhabitants and priests, remaining in an unfinished state. The secret vault, into which these relics are deposited in general, is called the Thácur's Cúti, the room or cell of the Lord; and in the inscription found amongst the ruins above this cell, it is declared that ST'HIRAPA'LA and VASANTA, sons of a King of Gaur, in Bengal, built this Cúti. It follows from hence, that these were the persons who deposited there the Thácur's bones. In the above inscription it is declared, that this happened in the year of VICRAMA'DITYA 1083, or of our Lord either 1017 or 1027.*. In the inscription found at Islámabad,† these relics, consisting of a few bones, are said to have been deposited in two brass vessels in a Cúti, or room under ground. In the account of the discovery of two urns at Sárnátha, it is mentioned that the Cúti was

^{*} As. Res. v. 5. p. 133.

[†] As. Res. v. 2.

eighteen cubits, or twenty-seven feet, under ground.* There the relics were deposited in an urn, enclosed in a vessel of marble, in the shape, and of the size of the famous Barberini monument. There were a few bones only, with various trinkets, which consisted of pieces of coloured glass, all of them perforated, with thin leaves of gold, and some coarse pearls. These ornaments are by no means a proof that these bones were those of a female. It is more probable, that they formed a chaplet used by devout people, or rosaries and bracelets, with which the statues of Budd'ha are generally decorated. The marble vessel, which contained the urn, is more highly finished than that of the Barberini monument. The urn itself is of a more elegant form than that in the above monument. It is in the shape and of the size of a chalice; it has no carved figures, but elegant mouldings, exquisitely finished, and is of green marble. I suspect the whole to be of foreign workmanship; for it is totally different, both in shape and workmanship, from vases in use among the Hindus, either at this day or in former times. Philostratus informs us, that statues, by Grecian artists, were by no means uncommon in the N.W. parts of India. Strabo says also, that altars of Grecian workmanship were often found in the western parts of India; and ARRIAN, in his Periplus, takes notice of altars and of small temples in the Grecian taste, near Barygaza or Baroach. The practice of thus preserving the bones of Budd'ha is of great antiquity; for it is expressly mentioned by CLE-MENS of Alexandria, who says, that they were deposited under a pyramid. In the history of China we read, that in the year 335, a bone of

^{*} As. Res. vol. v. p. 131.

Fo was sent from *India* to the Emperor of that country, who was highly pleased with this precious relic: though his minister Hangu made a very spirited remonstrance against this innovation; and which is to be found in Du Halde's *China*.

The followers of Brahma are not addicted to the worship of dead men's bones, and I know but one instance to the contrary. At Jagan-nat'ha they have a bone of Chrishna, which is considered as a most precious and venerable relic; so much so, that few people are allowed to see it: and Hindus are not fond of making it the subject of conversation, any more than the Baudd'has.

The shape of these monuments is always either that of a pyramid or of a cone, with some trifling deviations occasionally. Thus the cone assumes the shape of a trump-roof: sometimes it is formed by the revolution of a cymatium, or Ogive round an axis; and these two forms are generally said to be in the shape of a bell. Mount Méru, and the seven stories, are represented in the shape of a trump by the divines of Ceylon, according to Mr. Joinville's delineation in the seventh volume of the Asiatic Researches. The pyramid is equally subject to the same variations, the hips, or angles, being sometimes in the shape of a cymatium. As Mount Méru is also represented of a cylindrical form, the tombs of the Thácur are equally made in that shape, as that of Sárnát'ha. Sacrifices and offerings are never made in Tibet, without placing before the devotees a cone or pyramid, the image of Mérú and of the worldly Linga. Bráhmens, instead of either, make a cylinder of earth, and for the same

purpose. This they call the primeval Linga; which was represented in the west, and to this day in the Dekhin, by a cone, according to Annobius and other authors.

The steps, stories, and retreats are always omitted in India: but I was told, that it was considered as immaterial. The seven stories, however, are marked by lines, in a delineation of the worldly temple and tomb of Budd'ha, in a large map of the world, accompanying the Cshétra-samása, a geographical treatise in my possession. This representation of the mountain of God struck me forcibly, and was the occasion of further inquiries into this subject. It is of the same shape with the pyramids of Egypt: the base only is a little shorter, with a small flat top, with a chapel in honour of Budd'ha. The sides are smooth, as in the pyramids; but the seven stories are represented by lines, which brings it still nearer to the tower of Babel. The pyramids of Egypt are not all alike: some are in the shape of a cone; one with recesses is mentioned by DE Non, who notices also another with a circular base. The square base of this worldly temple is peculiar to the Baudd'hists of Tibet; for in India the Brahmens, and the Jainas, always give it a circular form. In the representation of it in the Cshétra-samása, it is a square. Though the dimensions are much neglected, yet in all these monuments at Benares, the most modern, and of course the most perfect, are of a conical figure; the perpendicular section of which, through the center, is an equilateral triangle. There is always a small temple on the summit, except one near Benares, at a place called Camowy. Such of these monuments as belong to the

Baudd'has are called the temples of Budd'ha: they might also be called the temples of Bala or Balas, one of the titles of Budd'ha, but little known now, and more particularly so to the vulgar. The word Balas, properly pronounced, sounds exactly like Belos in Greek, and Belus in Latin. May we not then reasonably suppose, that the temple and tomb of Belus at Babylon, was precisely a similar monument, and calculated for the very same purpose.

On the summit of it was a chapel, dedicated to Belus, according to HERODOTUS. DIODORUS, the Sicilian, says there were three; but this is immaterial; for BALAS is three and one. Besides, the temple of HE-RODOTUS probably consisted of three chapels. About the center of the tower, in the middle, was the tomb of BALAS, and near it, in the body of the pyramid also, another chapel, exactly as in the great pyramid at Giza in Egypt. It is probable, however, that the bones of Belus were not deposited in the ostensible tomb, but were concealed in a secret vault, in some other part of the pyramid or tower. It appears then, that the pyramids were similar fabrics, and intended for the very same purpose. For the Egyptians, the Phenicians likewise, had their Belus, as well as the Babylonians and Hindus: and this Belus, it is probable, was originally the same through these different countries. In the eastern parts of Bengal, particularly toward the Sunderbunds, there is, almost in every village, a representation of this worldly temple, of earth with steps. The whole is neatly plastered with a whitish clay; and on stated festivals, the statue of some favourite deity is placed on the summit, in a small,

but handsome portable temple. Some of these fabrics are from five to twenty feet high, according to the circumstances and zeal of the villagers. These are considered as a representation of mount Méru; and, in the inscription of Sárnáth, the conical mount, near the sacred repository, is called Méru.

Like all the temples and tombs of Belus in India, the pyramids had no opening whatever, except one or two. It is however pretty certain, that all the pyramids were not intended for the reception of the bones of Belus. Many were probably intended for the burial of a very few exalted and sacred characters, like the grand Lamas of Tibet, with a few others, who are always buried under pyramids: but these are acknowledged to be forms of Budd'ha, though of an inferior rank. As the Egyptians concealed most carefully the real place where their Belus was entombed, it is not unlikely that the great pyramid was only an ostensible one, and of course allowed to remain open. For we are told, that the body of him for whom it was intended, never was deposited there; or if deposited, it was not into the ostensible tomb, but into some secret place under the pyramid. The limbs of Osiris were buried separately, and on the very spot where Isis found them: and he was torn into fourteen pieces; others said six-and-twenty. The general opinion is, that Isis collected all the limbs in a coffin, like which she made many others, and presented them to several cities through Egypt; assuring privately every one, that they possessed the real one. It is supposed, that Osiris was entombed near Memphis, though the spot never was known.

The tower of Babel seems then to have been the wordly temple of the

spirit of heaven, and the tomb of his son, either the first man of the Calpa, or the most ancient king and legislator of the country.

There were four Adams, and four Budd'has also; and we are now under the fourth, according to the traditions of the Muselmans, and of the Baudd'has. Adam's body was, at his own request, entombed in a cave or vault, called Alconuz, in a mountain in the center of the world, and of course the Méru of the Hindus; and represented by artificial hills, either of stone or earth, and of various shapes, like Méru.

His descendants removed to that holy mountain; the wicked offspring of Cain were allowed only to dwell at the foot of it, whilst that of Seth were seated higher up, as far as the top; where they lived in great sanctity and purity of manners, every day worshipping God on the summit of the mountain, and visiting the body of Adam in his vault, as the means of procuring the divine blessing.* This mountain, in the center of the earth, with seven steps or stories, or mount Méru, was really the mountain of God, the worldly temple of the spirit of heaven, and the tomb of his son. Cointus of Smyrna says, that this holy mountain was depicted upon the shield of Achilles; and that on its summit resided the efficacy or Sactí of the world, or of the supreme being, towering to the skies: and he adds, that this most sacred place was very difficult of access.

The limbs, or bones, of this son of the spirit of heaven, Puencu in Chinese, Budd'na, Osiris, Dio-nysius, or Adam, were dispersed all over

^{*} Anc. Univ. Hist. vol. I. &c.

the world. Adam's remains, after the flood, were divided among his posterity. and his scull fell to the share of SHEM, who deposited it in a vault on mount Calvary, near the holy hill of Moriah or Morch. The inhabitants of Ceylon showed formerly one of his teeth; and they have now one of his tusks: for their last Adam or Budd'ha, was incarnate in the shape of an elephant; and ascended into heaven, from the summit of the peak of ADAM. Muselmans, who were settled in the Peninsula, and in that island, at 'a very early period, concluded, and not without some plausible ground, that this Budd'ha must have been Adam: and accordingly, Persian writers gravely inform us, that ADAM was banished to Ceylon, and thence translated into heaven, from the summit of the peak, which was denominated after him. ZARADES, ZOROADES or ZARAT was the name given, by the Chaldeans, to the eldest Zoroaster, claimed equally by the Persians. Some say that Belus taught the Chaldeans astronomy, whilst others insist, that it was ZARADES or ZOROASTER, whom several learned men consider as the same with MIZRAIM, the son of HAM. Be this as it may, the eldest ZARADES was the son of OROMAZES, the spirit of heaven, according to Suidas. Like Adam, he directed that his bones should be carefully preserved: his precepts for a long time were complied with: and his relics, carefully and secretly entombed, like those of BALA or BUDD'HA, like the limbs of Osiris, and like those of Bacchus at Delphi, became an object of worship. The eldest Zoroaster, called Zarades. ZOROADES and ZARATES by the Chaldeans, is probably the same with Belus and the Saurid of Arabian writers: and the Goddess Zaretis was probably his consort. Several learned oriental writers insist that Zoroades. or Zoroaster assisted at the building of the tower of Babel; and that he is the same with Zohac or Nimrod, and that under the name of

SAURID he built the great pyramid in Egypt. The Parsis in India say, that he was a native of China; but I suppose that they originally meant Bactria, seemingly the native country of the Chinas, according to the Puránías, and the earliest Persian and Arabian authors, who say that formerly the country about Samarcand was called Chinistan, and its inhabitants Chinas*.

II. The three peaks of *Mêru* are, one of gold, the other of silver, and the third of iron, stone or earth, which is considered as the same. Thus, the iron age is generally called the age of stone or earth in *India*. In the west, mankind was produced from stones, thrown by Deucalion and Pyrrha behind their backs, in the beginning of the iron age; and from them sprang the present stony or stone-hearted race.

In consequence of this, some powerful princes are declared, in the Purán'as and other books, to have erected three mountains, of gold, silver, and stone; or three pyramids or conical hills, like the three peaks of Méru, though the materials they were built with were only stone or clay. Polyænus has given us the names of these three peaks, Menon, Candaské, and Corasibé; which, however distorted and disfigured, may be still traced back to their original standard. For this purpose let us suppose, that a traveller asked a Hindu the names of these three peaks, the Hindu probably answered Mana, Cun't'hác'hya, Cailásópi, or literally in English, Mana,

^{*} D'HERBELOT'S Biblioth. Orient. voce Tarikh and Tabari. Sir W. Ouseley's Translat. of Ebn Haucal in the Appendix.

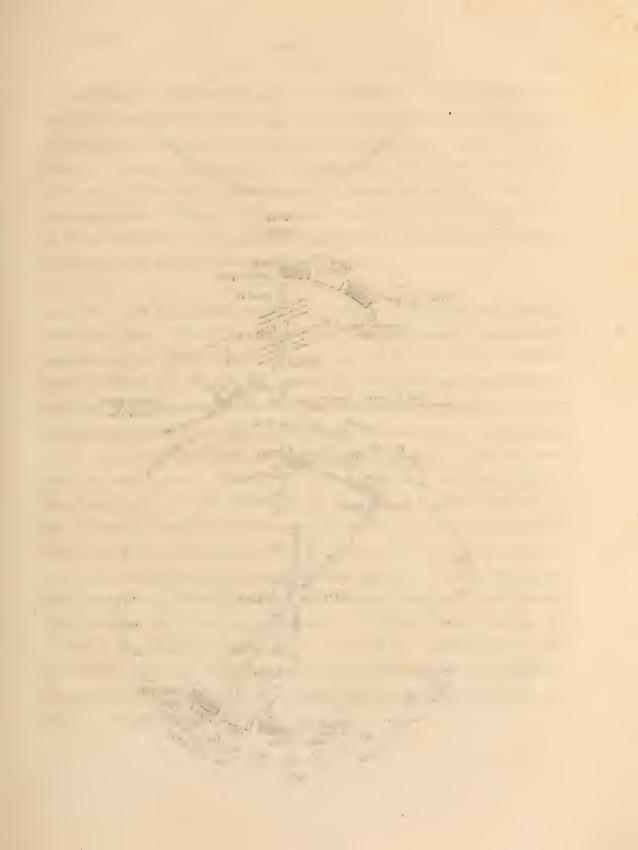
Cun't'ha' thus called, Caila's a also. The first peak, it is true, is not known under that name; but it is described as such, and this appears to be its real name. Upon it BRAHMA' resides, and his seat is called Brahmá-puri, or the town of Brahma': it is also Mana-puri, the town of Mana, or of his heart, or the delight of his heart, near the famous lake of Mana or Mánasa, the waters of which, proceeding from heaven, are the delight of his heart likewise. They are otherwise said to proceed from his heart, and indeed every thing there is from his heart. The obvious meaning of Mana is mind, (mens,) but it is always rendered here heart, because the mind proceeds from the heart, according to the Hindus, who even are able to trace its track through the body to the head. The radical name of Vai-Cun't'ha is Cun't'ha, an ideot. The name of VISHNU's mother, in one of his incarnations, during the fifth Manwantara, was Cun't'ha or the ideot; and as she was very much so, she was called VI Cun't'HA VISHNU, since that time, is surnamed VAI CUN'T'HA: and after him, the peak on which he resides is denominated likewise. In Cailásópi, api signifies also. This Tri-cútádri, or mountain with three summits, is declared to be the lord of mountains; and of course the other Tri-coryphean hills, for there are many, are considered as inferior to it. The next in rank is the three-peakland in the N. W. emphatically called the White island, the island of the Moon, a celestial earth or region, a terrestrial heaven or paradise.

The next to this is the Tri-cú'ta mountain in the south-east, including the peninsula of Málácá, Sumá-trá, and Ceylon. These two Tri-cútádris are declared to correspond to each other, in their respective quarters, and their Téja, Cirn'n'a, or splendor, are the constant theme of the Paurán'ics and other Hindu writers. These two Tri-cú'tas, or three-peaked-islands

may probably be the two islands of Cerne, east and west, of the ancients. When speaking in general terms, the *Pauránics* sometimes place them, one in the east, and the other in the west. But numerous and explicit passages show, that they are situated in the N. W. and S. E. quarters of the old There are however, some few passages, which place them north and south of Méru; and Lancá is now considered as situated on the equator, exactly to the south of Ujjayini, Méru, and opposite to the island of the moon. The last assigned situation was the first I hit upon, on my first acquaintance with the Puránas, and perplexed me very much; as the Pandits, I was acquainted with, insisted that the White island, one of the peaks of the western Tri-cúta, was in the N. W. quarter, that is to say, it occupied the whole space between the N. W. and N. points: and that likewise the eastern Tri-cútádri was between the S. and S. E. points. Unfortunately, they could not then produce the necessary vouchers from their sacred books; but in the mean time, they exhibited the accompanying map of Jambu, in order to illustrate the subject.

In the plate, the map of Jambu is represented under three different projections. The first is according to the ideas of the Pauránics, in which one half of the equator is obviously combined with another half of the meridian, on the plain of which the map is projected. I have marked the degrees of longitude upon the equator, and the degrees of latitude north, upon an arch of the first meridian. No notice is ever taken of these particulars by the Pauránics; but a little reflection will show the original design of this diagram, though the projection be ever so disfigured.*

^{*} Plate III.



20

Salmala M: or Peak of 70 Adam in Lanca

Nol

80

Longitude

150 Yama-puri

The Equator

по

The true projection of it should be in the shape of what the ancients called the bottom part of a sling: and this was admitted by Dionysius Periegetes. Posidonius before him admitted of it also: but he insisted, that the greatest length of this projection was in a north and south direction. This sort of projection is represented in the third number of the same plate. Number II. represents the same portion of the globe, that is to say, the northern part of the old continent, as projected in the usual form, upon the plain of the first meridian.

In the first and second numbers, the two Tri-cútàdris, or islands, abounding with Cirn'n'a or resplendence, are represented diametrically opposite, with all due symmetrical arrangement in every part, to which the Hindus will always sacrifice truth. There are, however, some general outlines, which are strictly true. There are really three islands, or dwipas in the south east, and as many in the north west quarter of the old continent, corresponding exactly, or nearly so, to each other; and they have also the same names. The rest of the superstructure owes its origin to the fertile and inventive genius of the Hindus. The idea, however, is by no means a modern one; nor was it confined to India: for ancient writers in the west acknowledged two islands, called Cerne, one in the east, and the other in the west: the latter, called also Cyrene, was placed near the straits of Hercules; and was said to consist equally of three islands. The eastern Cerne, it is true, was said to be near the eastern shores of This mistaken notion arose, through the information of the Hindus, who will have it that the dwipa of Lancá really joins the shores of 'Sanc'ha, Zeng, or Africa. The Nubian geographer adopted this idea, as well as Arabian writers in general.

The Gods are represented as travelling from one Tri-cûta to the other; and the grand depot for souls after death, is at Yama-puri, in the Peninsula of Málàcá; from which, on certain days fixed for that purpose, they set off together for D'harma-puri in the north west, which they reach after a painful march of twelve months.

These three islands in the south east, are in general called Lancá; and in every one of them is supposed to be a city called a Lancá-purí, and there is actually a place of that name in Sumatra, according to Mr. Marsden. The walls of these three cities are of the same metal with the soil of their respective islands: of course the walls and palaces of Lancá-puri in the Gold-Island, are of that metal; and of silver in the Silver-Island. In the island of iron, brass, stone, or clay, the walls are of these materials: but more generally they are said to be either of iron or brass. The Gold-Island, or Suvarnía, is also called Maha-Lancá and Má-Lancá; from which is probably derived its modern name of Málácá; which is also called Maláchya in the Dévi-puránía.

These islands were well known to the ancients, under the appellations of Chryse, Argyrea, and Taprobané. That of Taprobané, though generally understood of Ceylon, was also extended to the three islands; for Stephanus of Byzantium says, that Argyrea, the Silver-Island, or Sumatra, made part of Taprobané, and very properly too: for Taprobané is obviously derived from the Hindi Tápu-Rávana, the island, or islands of Ra'vana, who was the lord of them, and whose name, in the spoken dialects, particularly in the Dekhin, is always pronounced Raban. Their

Sanscrit names are Canchana or the Gold-Island; Rajata the silver one, and Sinhala is Ceylon. On the latter the epithet of Iron-Island is never bestowed in any book which I have seen: but it is understood as a matter of course: it was called also the brass country by PTOLEMY, though strangely misplaced by him.

From various documents, through different channels, he has introduced twice in his map of that country, this Tri-cứtádri, first, as three islands or Peninsulas, and also as three countries on the mainland, under the names of gold, silver, and brass countries. Mr. Danville has proved that the Peninsula of Málácá, with most of the places belonging to it, are twice repeated, and made contiguous by him.

In the Gold-Island, or Má-Lancá, is the abode of Yama, called Yama-puri, or in the spoken dialects Jam-cote, a place well known to Arabian and Persian writers. It is also called Lancá-puri, Lancá-nagara, the town of Lancá; and the straits of Málácá are called, in the Puránas, Lancá-dwára, or the gates of Lancá*, as we shall see in the course of this work. Canca is another name of Yama or Pluto; and as the place of his abode is in Málancá, according to the Puránas, the Lancá-dwára or gates of Lancá, the straits of Málácá might be called also with propriety the gates

^{*} Scanda-purana, section of TAPI-C'HAND'A.

of Canca, Pluto, or Canca-dwára. This denomination is never used now by the Pauránics; but there is no doubt, that it was so formerly; for the Cancador of Ali-Coshgi, and other early Muselman writers, is obviously derived from Canca-dwára, Canca's door or gate. It is true, that they make a town of it, which they call also more correctly Cancánor for Cancá-núr, which last is acknowledged to be the same with Canca nagara, the town of Canca: and in the Dekhin they always say nur or nuru, instead of nagar. This town is obviously the same, which is called Cocco-nagara or Conco-nagara by Ptolemy. The country of Canca is Cancades'a in Sanscrit; hence Muselman writers call it also Gung-diz.

Cancapuri or Canca nagara is then the same with Yama-puri or Jamcote, called also in the Puránas Mahá-Lancá-puri, or Má-Lancá: and it is probably the same with that called Balanca by Ptolemy, and placed by him in Long. 162° and in 4° 40′ Lat. North. It appears, however, that Muselman writers understood by it the town of Saba or Zaba: for Yama-puri or Jam-cote is a mythological city and never existed.

We observed before that PTOLEMY has introduced into his map the golden country, island or peninsula, not only twice; but that he has likewise introduced twice, most of the places belonging to that country. Accordingly Conco nagara is again noticed under the name of Coccoro nagara, or Cocco nagara; from which Muselman writers have made Caracor for Canca-rai-ghur, the house or place of abode of Canca-rai-ya' or Yama: but they consider it as the same with Cancanor. This town

they call also Canacor, which is some place in the Gangetic provinces: but I have shown before, that Canacor or Cancar, was the capital city of the country of Gancar-deha, or of the Gangaridæ in Bengal.

Jum-cote or Lancá-puri, which D'HERBELOT writes Giamcout, they place, with the Hindus, in the center of the Peninsula, in five degrees of Lat. North, and in Long. 176 or 175, according to ABUL-FAZIL and others; and Ptolemy places Balonca, or Má-Lancá-puri in Lat. 4° 40' North, and in Long. 162. The Longitude of Lancá or Má-Lancá may be ascertained from the Puránas; a circumstance very unusual. Yamapuri is declared in these sacred books to be the general rendezvous of the departed from all parts of the world, and from which they proceed in a body with a proper guard, composed of the servants of YAMA, to D'harma-puri, which I shall show hereafter to be the purgatory of St. Patrick in Hiran'ya or Suvarn'eya, the gold island in the west. The days and distances are accurately described, which summed up amount to \$1,554 Yójanas.* The breadth of the world is 100,000 Yójanas, equal to 180° of longitude: and these 81,554 Yojanas answer of course to 146° 48', which subtracted from 180 degrees, leave 33; the half of which 16° 30' is the longitude of Dharma-puri, and added to 146° 50' will place Má-Lancá or Jum-cote in long. 162° 20'. For these two places are at the furthermost extremities of the earth, which forms a perfect circle, surrounded by a sea, every where of the same breadth.— This singular route of the departed will be the subject of a separate paragraph. It passes through India, in the direction of the first range of

^{*} Gan'es'a Puran'a.

snowy mountains. The *Pandits*, whom Abul-Fazil consulted, placed Cancador 1265 Yójanas from Lancá, or the peak of Adam, which is in 90° of longitude, according to them. Yama-puri is accordingly 1205% Yójanas from Lancá; some reckon 1242, which will place Yama-puri in long. 178°. 22′.

The commentator on the Súrya-Sidd'hánta, has reduced that distance very much; for he says that Lancá, or the three islands, occupy a space of 30 degrees along the equator; and this will bring their assumed longitude of the easternmost shores of Má-Lancá nearer to its real one.

As Ptolemy places Má-Lancá-puri in the same longitude with the Pauranics, he must have used the same data, and which he had probably received from the Hindus whom he conversed with at Alexandria. Má-Lancá being, according to the Pauránics, in the center of the Peninsula, it must be of course in about five degrees of Latitude North: and there it is placed by Abul-Fazil: and in 4° 20′ by Ptolemy. Má Lancá is called in the Puránás Yamala and Malaya; which last denomination it still retains It is styled also Canchana-páda, or with the golden skirts. It may be translated the country of the golden feet, a title assumed by the Emperors of Ava, and other Kings of that part of the world: and the Malayan breeze is as famous in the east, as the Sabæan in the west, and its capital was also called Saba or Zaba.

In the beginning of the Brahmánda-purán'a, it is declared, that the strong hold of YAMA in Tri-cúta, that is to say the Peninsula of Malaca, is 100 Yó-janas long, and 30 broad, which is sufficiently accurate.

Ptolemy mentions there a place called Malaiou-colon, probably from the Sanscrit Malaya-cúlam, which implies a place on the borders or shores of Malaya: the same is called Maletur by Marco-Polo; Malaya-tir and Malaya-cúlam are synonymous. Peri-mula in Ptolemy, I suppose to be derived from the Sanscrit Pari-Malaya, which implies the same thing. For it is probable, that they were acquainted only with the tíram, tír or culam of the Peninsula: and Canchana-páda may also signify the foot, skirts of the golden mountain, or Peninsula.

The next island is Sumatra, called in the Pur'an'as Rajata, or silver island, the Argyre of the western geographers. In the Vrihat-cátha it is called Naircéla or Nalicéra and Srimat, or the fortunate, and synonymous with Srimatra.

That famous island is called now Sumatra, and by former European travellers Symotta. In the same book, and in the Hitópades'a, it is called Carpura, or camphire island. In the spoken dialects, that word is pronounced Ca'pur and Ca'fur. Marco-Polo gives the name of Fanfur to one of its provinces, probably for Canfur or Campar, as it is now called. A beautiful lake on the island, is mentioned in the Hitópades'a under the name of Padma'-nilaya, or the abode of Padma'-pe'vi.

It is also called *Mandara* in the *Purán'as*: and as it is represented as a most delightful country, it may be denominated *Su-Mandara*; and it was called *Samander* by former geographers. But it seems, that this appellation is derived from *Samander* in the spoken dialects of *India*, from the *Sanscrit Samudra*, which signifies the ocean. The author of the *Periplus* mentions an island near the *Ganges* called *Oceanis*; and EL-EDRISSI says that the island of *Samandar* is near the *Ganges*. Probably the au-

thor of the *Periplus* confounded it with *Ságara* island, a name of the same import, at the mouth of the *Garges* and called also *Oceanis* by Diodorus the *Sicilian*. The context, however of this author, and of more modern geographers, show that it cannot be the same island.—Salmasius and others improperly laugh at the idea of an island at sea being called *Oceanis*. This *Oceanis* was probably the place of abode of old Samudra, the old man of the sea, often mentioned in romances in the east.

The word Samudra, or Samundur, are pronounced, Sumundu, and Mundu in the dialects of Ceylon; and there is an island of that name mentioned by ancient geographers in the eastern seas, and supposed by them to be the same with Taprobane or Ceylon; but Stephanus of Byzantium says that the silver island made part of Taprobane, which is really the case. It is also called by them Palai-Simundu, which I take to be a corruption from Pulo-Simundu, Pulo-Symotta, the island of Simundu, or Symotta. The description of that island, under the name of Simondu, does by no means agree with Ceylon: but is easily reconciled with Sumatra, though we know but little of the interior parts.

The large lake called Megisba, with the metropolis, does not exist in Ceylon, but is probably that extensive lake to the south of Menang-cabore, mentioned by Mr. Marsden in his map of Sumatra, from which several large rivers seem to issue. The harbour of Hippuros or Ipporus in Pulo-Simundu is called Appoor by Danville, and Ippu by Mr. Marsden from the Sanscrit and Hindi 'I-pura or 'I-pu, and in a derivative form Ai pura, the town of the goddess 'I or Bhava'ní. From this lake issues the river Andra-guerii or Indergeree, in Sanscrit Indra-

giri; because its source is in the giri, or mountain of Indra, or Maghabá; from whom probably the lake in the plains below was denominated Maghabá or Megisbá, according to Pliny, and Padmá-nilaya or the place of abode of Padma'-de'ví the consort of Vishnu, in the Hitopades'a.

From this lake issued two rivers, according to PLINY; one called Palesimundus flowed towards the south, and towards a town of the same name (perhaps the modern Palembang) which was the metropolis of the island, and had a famous harbour. The river divided then into three streams, the smallest of which was five furlongs broad, and the largest two miles nearly. Thus I translate this passage of PLINY: for it is impossible that three such large arms of a river should fall into a harbour. According to Mr. Marsden, this lake communicates with the river of Palembang: for, says he, the inhabitants avail themselves of this lake in transporting their goods to, and from Palembang.*

The other river, toward the north, and supposed to issue from that lake, was called Cydara; probably because it flowed through the country of Ru or Aru, called Dàru by former European travellers: the capital of which, on its banks, was probably called Cota-Ru, or the town and fort of Ru. This is the largest river in the island, and of course its source far remote into the interior parts of the country. The river Siac seems to be a branch of it: and the Campar is supposed to communicate with the river Indra-giri. Opposite to this, toward the west, another river flows from the mountains of Indra-giri, and is called Andrapour or Indrapour from

^{*} History of Sumatra, p. 9.

the Sanscrit Indra-pura: and I believe that the town is the same which is called Andra-Simundu by PTOLEMY, and foisted into Ceylon by him, ona supposition that it was the same island with Pulo-Simundu; and I believe that this is not the only place in Taprobane, that belongs to Pulo-Simundu. The mountains of Indra, or Maghabá in the island of Sumatra, are mentioned in the Vrihat-cat'há, under the name of Baláhaca, which is synonymous with Megha, from its summit being capped with clouds: and INDRA, who presides over rain, resides above the clouds: hence he is called Me'GHAVA'HANA, Me'GHA-BA'HANA, and in conversation MEGHABA'N, or the cloud borne. The other mountains in Sumatra, mentioned in the Vrihat-cat'há, are Maináca Vrishabha, and Chacra,— Upon these four mountains, as many gods are, in the same book, declared to reside, and to travel occasionally in their self-moving cars to the White Island in the west, in order to pay their respects to VISHNU, and his consort ABDHITANAYA', or the daughter of the Ocean. Nâricéla, another name for this island, implies its abounding with cocoanut trees, the leaves of which being agitated by the winds strike against each other, and seem to repeat the words Boc-boc or Vac-vac: or the continual noise which they make is compared by the Hindus to what is called in Hindi Boc-boc or constant chattering. Sumatra is then the island of Boc-boc, Vac-vac or Wac-wac of Arabian authors; who say that the leaves of these trees striking against each other seem to repeat the word Wac.

Sumatra appears to me to be the same island, in which Jambu-Lus is supposed to have resided seven years, and from which he went to Palibothra. The inhabitants, says he, have two tongues, or lan-

guages; their own first; and probably the Malay was the other, which they spoke fluently, but I suppose only in the districts bordering upon JAMBULUS takes notice, that this island abounded with hot springs, which is true of Sumatra, but not of Ceylon. They had also an alphabet, consisting of twenty-eight letters, divided into seven classes, each of four letters. There were seven original characters, which, after undergoing four different variations each, constituted these seven classes. They wrote also from top to bottom: and that this was the case formerly in Sumatra is my opinion.* For the manners of the natives of the Philippine islands, correspond in so many striking particulars, with those of the Sumatranst that no doubt can be entertained, says Mr. MARSDEN, if not of a sameness of origin, at least of an intercourse and connexion, in former times, which no longer exists. They used to write from top to bottom, till the Spaniards taught them to write from left to right. The Tagala alphabet in these islands, has certainly great affinity with those of Sumatra.

The two alphabets of the *Sumatrans* consist only, one of twenty-three, and the other of nineteen letters: but it is probable that there were two sorts of them formerly, as in *India*, and which were originally the same. One was used by the more civilized and learned

^{*} Dr. LEYDEN, who has been lately engaged in inquiries concerning the tribes inhabiting the islands of the eastern Archipelago, partly confirms this conjecture by the information, that the mode of writing, practised by one of the tribes in Sumatra (the Battas), is perpendicular: but instead of commencing at the top of the line, the writing begins at the bottom. MARSDEN'S Batta alphabet is stated to be correct, provided the plate be turned in a perpendicular instead of a horizontal direction. H. T. C.

[†] History of Sumatra, p. 255.

classes, and at court; the other was current among the lower classes, whose poor and barren dialects had fewer sounds to express. Be this as it may, the elements of their alphabets have an obvious affinity with those of the Sanscrit. The Sanscrit alphabet, after striking off the double letters, and such as are used to express sounds peculiar to that language, has a surprising affinity with the old alphabets used in Europe; and they seem to have been originally the same. This subject I intend to resume hereafter. The Emperors of Sumatra, when endeavouring to introduce civilization into their country, opened an intercourse with India, but more particularly with the kingdom of Magad'ha, and Palibothra; for as Mr. Marsden judiciously observes*, the Malay language has received no improvement from the dialects of the Peninsula in India. All the Hindi and Sanscrit words in that language are such as were in use at the court of the Emperors of India, residing in Bahar, and among the better sort of the inhabitants of that country.

The Kings of Sumatra call themselves Mahá-rájas to this day; their prime ministers are called Mantri:† which are both Sanscrit terms. In their language Dewa and Dewata are derived from Déva and Dévatá in Sanscrit; the first of which signifies God, and the other a deity. Among the names of places in Sumatra, very few are Sanscrit, but the following are undoubtedly such; viz. Indragiri, Indrapura, Ipura or Aipura, Sinha-pura, Singá-pour, or Sincápour.

Jambulus says that this tract of islands, or Lancá, consisted of seven principal ones: and to this day in the Peninsula, Lancá is often called

As. Res. v. iv. p. 233.

[†] Hist. of Sumatra, p. 285, and from Mantri the Portuguese made Mandarin.

Yail-Lancá or the seven Lancás; because it consisted of seven islands. This information I owe to Mr. Duncan, Governor of Bombay. From Yail-Lancá former travellers made Ylanca.

Sumatra is perhaps the island of Sabalá mentioned in one of the Puránas; and it is the same which is called Saivalá or Saibalá in the Váyu purána, section of the earth, and represented as a mountainous region in the skirts of Bhadrásva, or that part of the old continent between the N. E. and S. E. quarters. From Saibalá, Apuleius and Aristotle* probably made Phebol or Psebol, as some learned men are inclined to read it. The former says, that in the eastern seas, there are two large islands, Taprobane and Phebol: Aristotle places the latter opposite to Arabia, and we have seen before that the Pauránics, Arabian and Persian authors insist, that Sumatra is close to the continent of Africa. the island of Sabala is probably the Samil or Shamel of El-Edrissi and other eastern geographers, who call it also Sabil. The country of Cephala is noticed by former European travellers; and in the year 1543, adventurers from that country plundered and ravaged part of the island of Sumatra.†

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III. Let us now pass to the third island, or Sinhala, now Ceylon.— Its Sanscrit name is a derivative form from Sinha, a lion, and it was given to it on account of its being inhabited by Sinhalas, or the off-

^{*} ARISTOT. de Mundo.

⁺ Hist. of Sumatra, p. 6.

spring of a lion.* It is, however, more generally called Lancá in the Puránas, and is represented there as the country of Rávana, or Rában, the brother of Cucéra; and both were born at the extremities of the world, in the N. W. As he was contemporary with RAMACHANDRA, if there ever was such a being, he must have lived about 1800 years before The wars of Ra'vana in Lancá, and the adjacent countries. are famous all over India, and make an era in the history of Ceylon. Traditionary legends in that island say, that in consequence of this bloody war, the island was depopulated, and remained in that state for 1845 years, being only inhabited by Daityas, or rather savage tribes. Ceylon was afterwards called Saláva, or Sálavam according to F. Bartholomeo, from the Sáleyas, a certain tribe in India, called also in the Puránas Sálavas. The famous peak of Adam was called Sálmala, or the mountain of Sála. It is mentioned in the commentary on the Súrya-Sidd'hanta; in which it is said, that MAYA the offspring of the Sun, by the daughter of the divine Twashtá in the west, eame from Rómaca-nagara, or Rome to the mountain of Sálmala in Lancá, to make tapasya in honour of the sun, in order to obtain astronomical knowledge from him. Another name for it is Sámánala from Saumya-Nala another son of Twashtá, who built RAMA's bridge. Twashtá is the chief engineer of the gads, and his grand-son MAYA of the Daityas.

The appellation of 'Salica, or 'Salice, as it was called by ancient geographers of the second century, is also a regular derivative form in Sanscrit, from 'Sala or 'Sali: this denomination was unknown to Pliny. According to F. Bartholomeo, and former travellers, Ceylon was called

^{*} As. Res. v. vii. p. 48.

Ilam, and Ila-nàd, Ilanár; the country of Ilá, which signifies the earth in general. Tra-nád, or Tranáté, another name for it, signifies the three countries, meaning I suppose the three islands of Lancá.

The Hindus reckon the longitude from the meridian of Lancá, passing through the peak of 'Sálmala, the place of worship called Rámeswara, (or dedicated to Iswara, with the title of Ráma), Avantí or Ujjain, Méru, and the mountain of Vatsa in Curu or Siberia, which last is most probably an imaginary place in that country. The place of Ráma was called Arima by Muselman writers; and they said that it was under the equator, and exactly half way between the straits of Alexander or Malaca, and those of Hercules or Gades in the west: and they gave the name of Gadir or Gades to these two straits, both leading into two vast Mediterranean seas; and through Arima the Hindus, and even some Arabian authors, it is said, made their first meridian to pass. Ali-Coshgi a Persian astronomer, who lived about 350 years ago, says, that in his time some Hindus placed their first meridian at Cancadora, or Jum-cote in the east.* I believe that some of them did so formerly. and this of course occasioned afterwards some confusion. Their first meridian then passed through the eastern Cerne, and the last through the western one, the several islands of which tract were the original islands of the blessed. When this mode of reckoning was altered, the meridian was placed in the middle of the world, yet it still passed through the eastern Cerne; though through a different part of it. This induced them also to bring one extremity of the western Cerne under the same meridian, probably for the sake of symmetry, which was cer-

^{*} Abulfedæ Chorasmiæ, &c. descriptio int. Geograph. min vol. iii. p. 9.

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tainly a sufficient reason with them. Thus the iron peaks of the two Tri cûtádris fell in the same meridian, and the northern one might be about Nova-Zembla.

This made me suppose, on my first acquaintance with the Purán'as, that the White Island was an Utopian land, and I resolved of course to give myself no further trouble about it. The ingenious Mr. Bailly would not have failed, to have considered this projection of the northern Tri-cüta, as a confirmation of his own system. There is another instance of the fondness of the Hindus for a symmetrical arrangement, and noticed by Strabo, as we have seen in the first part. The mountains to the north of *India* are in an oblique direction, and the first range of the snowy mountains is in the same line with Romaca-pattan or Rome, and Yamapuri or Jumcote, as placed by the Hindus, one at the furthest extremities of the west, and the other in the same manner toward the east, as represented in the second number of the accompanying plate. But as this oblique direction of the mountains to the north of India, does not look so well in the mode of projection adopted by the Hindus, they have represented them in a parallel direction with the equator; and with them Juncote and Rome. STRABO highly reprobates that alteration in the direction of the mountains to the north of India; and which in his time, had been adopted by geographers in the west.

These two Gadirs, called the eastern and western gates, by Arab and Persian authors, are in an oblique direction, and may be called the terrestrial gates: for in heaven there are also two gateways, one in the west in the tropic of Cancer and the other in the east in the other tropic. These were called the gates of the sun: the southern one was

denominated the water gate, and the fire gate was in the north. The souls of the departed ascend through one gate, and those who are to be born again descend through the other, according to western mythologists. The *Hindus* have also two roads, one in the north or left, and the other in the south. Those who follow the left path, ascend through the northern road; and those, who follow the right one, ascend through the southern path.

On the Languages and Literature of the Indo-Chinese Nations.

BY J. LEYDEN, M. D.

THE inhabitants of the regions which lie between *India* and *China*, and the greater part of the islanders of the eastern sea, though divided into numerous tribes, and equally dissimilar in their languages and manners, may yet with propriety be characterized by the term *Indo-Chinese.*—Situated between *India* and *China*, each of which proudly styles itself the most ancient among the nations of the earth, they have contented themselves with more modest claims to antiquity, and professed to borrow from one or other of their neighbours the principal features of their religion, laws and manners. The different periods, however, at which these were adopted in different countries, the various degrees of civilization, and the pre-existing habits on which they were engrafted, have produced a diversity of national characteristics, by which they are not only distinguished from the *Indian* and *Chinese* nations, but also from one another, notwithstanding their common mixed origin.

The intercourse of Europeans with the Indo-Chinese nations, though, for the first two centuries after the arrival of the Portuguese in the east, scarcely inferior to that which was carried on with India or China, was not of such a kind as to furnish us with a very accurate or extensive knowledge of their laws, manners or literature; and for more than a century it has been rather declining than increasing. Neither, since our late rapid ac-

quisitions in *Indian* languages and literature, have we obtained any important accessions to our information in this quarter; though both political and literary reasons seem to require them.

The materials of this imperfect sketch were chiefly collected in the course of a voyage, which the state of my health caused me to take to the eastern isles, in 1805, during which I resided some time at Penang, and visted Achi, with some other places on the coast of Sumatra and the Malayan peninsula. Cultivating an intercourse with a variety of individuals of different eastern tribes, I availed myself of the facilities which the situation presented, to correct the vague ideas which I had previously entertained, concerning their languages, literature and the filiation of their tribes. Though my information was chiefly collected from native sources, yet it sometimes happened, that these were not exactly such as I should have preferred, had better been attainable; and some times too, from the indifferent state of my health and other causes, I was not able to avail myself of these sources of information to the extent I could have wished. Feeling myself equally embarrassed by the extent of the subject, the difficulty of the research, and, perhaps I may add, in some instances, by the novelty of the investigation, I should have hesitated to lay before the Asiatic Society these imperfect results, had I had any immediate prospect of pursuing the discussion. I do not however despair of being able, at no very distant period, to offer some more minute and correct views of several of the subjects treated here in a cursory manner; and, at all events, I trust this attempt to introduce order and arrangement into a subject at once so extensive and intricate, and to disentangle it from a degree of confusion which seemed almost inextricable, may not be altogether without its use; but may, even where I have failed, serve to point out the proper method of investigation.

The Indo-Chinese nations, at a very early period, seem to have generally embraced the system of Budd'ha. From the want of original historical documents, we can only conjecture the period at which this event took place, in the different regions over which it has extended; but at present it is chiefly confined to the continent. The coasts of the Malayan peninsula, and of the greater part of the eastern isles, are chiefly occupied by the Moslems. The original inhabitants, therefore, being for the most part confined to the interior of these islands, are still very imperfectly known to Europeans; so that it is often impossible to determine, whether their religious institutions are most connected with the tenets of Brahma or Budd'ha, and often to reduce them to any known system. From the names and epithets, however, of some of their deities, even as given in the vulgar and incurious manner of common navigators, it is often easy to discover their connexion with the grand features of Hindu superstition; but our notices concerning them are generally too scanty, and our narratives too erroneous, to enable us to classify them with absolute certainty. Such is the difference of oriental and European manners, that the simplest narrator is apt to mingle conjecture with observation; while an absurd affectation of superior sagacity and a disdain of vulgar superstitions and prejudices, often prevent those who have had the opportunity of observation, from detailing the most useful pieces of information, or induce them to reject, as anile and useless fables, the mythological narratives which would enable us to determine the origin of a nation or a tribe.

With the exception of the Malays, and perhaps some rude tribes of mountaineers, the nations who occupy the countries which extend from India to China, profess only one religion, and adhere almost solely to the system of Budd'ha. In so vast an extent of country some diversity of local institutions is always to be expected; but the spirit of the system and its influence on the manners of the people, in the same state of civilization, is essentially the same from Chatigan to China. This system in its grand features identifies itself with that which prevails in Nepal, Bután, and Tibét, and has extended itself over the immense regions of Chin, Cham, and Japuén, or China, Tartary, and Japan. Though it does not appear that all the nations who occupy this prodigious extent of territory employ the same learned language in the preservation of their sacred books and religious tracts, yet this is the case with the Indo-Chinese nations, who, with the Singhalese, or inhabitants of Ceylon, uniformly employ the Bàli or Pali, in the sacred compositions of the Budd'hist sect. This language does not exist as a vernacular tongue, but is the language of religion, learning, and science, and appears to have exerted an influence over the vernacular languages of the Indo-Chinese nations, similar to that which the Sanscrit has exhibited among the popular languages of Hindostan and Dek'hin.

The Malayu language, and the more original languages of the eastern isles, seem in their original formation, to have been polysyllabic, like Sanscrit, Pali, and the spoken dialects of India. The modifications which these languages have received from a foreign source, seem for the most part, to have been effected, rather by the immediate agency of Sanscrit than of Pali; though the influence of this latter is not to be entirely

excluded. But several of them have been a second time modified, by the introduction of Arabic, as the language of religion and learning, after the conversion of several of these tribes to the Mahummedan faith.

The vernacular Indo-Chinese languages on the continent, seem all to be, in their original structure, either purely monosyllabic, like the spoken languages of China, or they incline so much to this class, that it may be strongly suspected, that the few original polysyllables which they contain, have either been immediately derived from the Pali, or formed of coalescing monosyllables. These languages are all prodigiously varied by accentuation, like the spoken languages of China; and every foreign modification which they have received seems to have been immediately derived from the Pali.

In the paucity of existing monuments, relative to the *Indo-Chinese* nations, no better method presented itself, either for classing their tribes, or laying a foundation for historical researches, than by examining the mutual relation of the several languages which are current among them. This method, when applied on an extensive scale, is always the surest clue for developing the origin of a nation, and indicating the revolutions to which it may have been subjected, either by foreign conquest or colonization. After the relations of the language itself, the ancient monuments and compositions, preserved in it, claim our regard; and I have therefore noted, under their respective heads, such as have come to my knowledge; premising that my opportunities of procuring this species of information have been very unfavourable, and of examining them, very limited.

The Indo-Chinese languages may be considered in the following order.

Polysyllabic languages.

1 Malàyu, 2 Jáwa.

- 3 Bugis,
- 4 Bima, 5 Batta.
- 6 Gála, or Tăgála.

Monosyllabic languages.

- 7 Rukhéng,
- 8 Bárma,
- 9 Môn,
- 10 T'hay, 11 Khôhmén,
- 12 Law.
- 13 Anám.

The learned language.

14 Pali.

I. MALAYU.—The Malayu language, so pronounced in the Malaya peninsula, but by Europeans generally denominated Malay, is used by the numerous and enterprising nation of that name, who are termed Khék by the Siamese, and Masú by the Barmas. This language, which from its sweetness, has been termed the Italian, and from its widely extended use the Hindostani of the East, though it coincides with the monosyllabic languages in its general construction and analogies, is properly polysyllabic in its form. Having spread itself over a great extent of country, not only in the Malaya peninsula, but far among the eastern isles; and having been propagated by a race more skilled in arms than in letters, it has branched out into almost as many dialects as states, by mixing in different proportions with the native languages of the aboriginal races. This is the circumstance which renders the investigation of the origin and relations of the Malayu language a matter of difficulty, as it becomes necessary to examine the history of the nation, as well as the structure and composition of the language itself. Though used by a nation of comparatively

late origin, at least with respect to the principal features which it at present presents, the history of this nation is still very obscure, rather, it may be presumed, from the want of investigation, than from the want of materials for its illustration. The history of the origin and progress of the *Malayu* tongue, of course partakes of this obscurity; but notwithstanding the great diversity which occurs in the spoken dialects, in the bazar jargon, or as the *Malays* term it, the *Basa Dagang*, of the several *Malay* states, the *Basa Jawi* or written language of composition, is nearly the same in all; and the popular, or vernacular languages, are reckoned pure, in proportion as they approximate to the written language.

Assuming therefore the Basa Jawi as the standard of comparison, the Malayu language, in its present state, consists of three principal component parts. The first of these, which is rather the most copious and current in the language of conversation, may, perhaps, in the present state of our knowledge, be regarded as original, though it is not only connected with the insular languages, but with some of the monosyllabic, as Bárma and T'hay. The second, which is obviously derived from the Sanscrit, is rather inferior in the number of vocables to the first, though as far as regards general use, greatly superior to the third part, which is derived from the Arabic. As a spoken language, the Malayu exists in the greatest purity in the tin countries, or the peninsula of Malaya, which is obviously the Temala of Ptolemy. Temala is a regular derivative from the Malay vocable tema, which signifies tin, and from this, among other circumstances, we may be permitted to infer the high antiquity of the basis of the Malay language, from its giving name to the Cassiterides of the east. Malayu language is spoken in its greatest purity in the states of Kiddeh

or Tanna Say, Pera'k, Salangor, Killung, Johor, Tringgano, Pahang, and as far as Patani, where it meets the Siamese. Among the western Malays in general, it is spoken with more purity than among the more casterly isles, but on the coast of Sumatra, or Pulów Purichu, it is intermixed with the Batta and other original languages. The Menangkábow race, who seem at an early period to have ruled the whole island of Sumatra, whose chief assumes the name of MAHA' RA'JA' of RA'JA's, and derives his origin from Lánkápura, speak a dialect of Malayu, which differs considerably from that of the peninsula; but which seems, as far as I can judge, to coincide in many respects with the Jawa or Javanese language. The race have probably derived their origin from Lankapura in Java. The Malayu dialects of Riyow and Linga seem to be mixed with Javanese, as are those of the Malay states on the island of Java. The dialect of Puntiana and Sambas, is purer than that of Borneo or of Banjar; but that of Passir, on the east coast of Borneo, is greatly mixed with the original language of Celebes, or the Búgís. The Malays of Celebes speak a dialect greatly mixed with Búgis, while those of the Moluccas and the more eastern isles have adopted such a multitude of foreign words, that their dialect sometimes seems to be quite a different language. The simplicity of structure which the Malayu language possesses, in common with those of the monosyllabic class, greatly facilitates this adoption of foreign terms; and the practice is so prevalent in the more easterly isles, that the term Basa Timor, or the eastern language, is currently applied to every kind of jargon.

As the Malayu language, from its wide extent and the adventurous spirit of the nation, seems to have exerted, in the eastern isles, a modifying

influence, similar to that of the Sanscrit in Hindostan and Dekhin, and of the Pali among the Indo-Chinese nations; it becomes necessary to examine it somewhat more particularly; especially as some of the opinions I have been led to adopt concerning it, are somewhat different from those which have been entertained by names of great authority.

The Malay language, according to MARSDEN, whose opinion has been rather admitted than confirmed by Sir W. Jones, is "a branch or dialect of the widely extended language, prevailing throughout the islands of the Archipelago, to which it gives name, (which may be understood to comprehend the Sunda, Philippine, and Molucca islands) and those of the South Sea; comprehending, between Madagascar on the one hand, and Easter Island on the other, both inclusive, the space of full 200 degrees of longitude. This consideration alone," adds that able author, "is sufficient to give it claim to the highest degree of antiquity, and to originality, as far as that term can be applied. The various dialects of this speech, though they have a wonderful accordance in many essential properties, have experienced those changes which separation, time, and accident produce; and, in respect to the purposes of intercourse, may be classed into several languages, differing considerably from each other *." In another paper, published in the Archeologia, vol. VI. this able author has successfully exhibited a variety of instances of coincidence, both in sound and signification, between the Malay and several of the eastern dialects.

^{*} Asiat. Research. Vol. IV.

attempting to prove too much, however, I apprehend, that he has failed essentially. He has pointed out a few coincidences, but has left the mass of the language totally unaccounted for; and as the few coinciding words may all have been derived from a common source, it is perhaps a more natural inference to conclude that they have all been modified by some general language, than with Sir W. Jones, to determine that the parent of them all has been the Sanscrit. The same author, in his history of Sumatra, seems inclined to think that the Malay language was indigenous in the Malay peninsula, from which it extended itself among the eastern isles, till it became the lingua franca of that part of the globe. The author of the description of Siam, in the modern part of the Universal History, not only assigns a very different origin to the language, but accounts in a very different manner for its uncommon extent. Describing Malacca, he observes, "The Malayan tongue is formed out of the languages of the different nations which resort hither, by selecting the choicest words in each. Hence it is reckoned the most agreeable and elegant in all the Indies, which quality, joined to its use in trade, causes it to be learned by the remotest eastern people." A language, formed according to this ingenious idea of selection, might probably be remarkably agreeable and elegant, but it would be still more remarkable, as a new phænomenon in the history of nations. It would certainly be a very uncommon occurrence in the history of mankind, to discover a nation so choice in matters of abstract sound, and so refined in their organs of hearing, as to take the trouble to learn a copious and unknown language, for the mere abstract pleasure of gratifying this delicate sense or appetite for sweet vocalic sounds. Nevertheless, though the author is a little unfortunate in his

doctrine of causes, the fact to which he alludes is worthy of attention; for it is not necessary to possess a very minute knowledge of the Malayu language, to be able to call its originality in question. It may be safely affirmed, that neither the Malay lingua franca of commerce, nor any of the maritime dialects of Malayu existed previous to the era of Mahummed, in a state similar to that in which they appear at present; and these dialects seem to comprehend all that are usually included under the denomination of the Malayu language.

The Malayu language, in this limited sense, is obviously indebted to two foreign sources, for the majority of the vocables which compose it, and these are the Sanscrit and the Arabic.

The connection between the Sanscrit and Malayu was first remarked by Sir W. Jones, and Mr. Marsden has confirmed the fact, by about fifteen examples, selected, as he says, with little pains, from a Malay dictionary, which had he been acquainted with the Sanscrit language, he might with very little labour, have extended to fifteen hundred, or perhaps five thousand. Many of the Sanscrit words in the Malayu, as he observes, are such as the progress of civilization must soon have rendered necessary, being frequently expressive of mental feelings, or such modes of thinking as naturally result from the social habits of mankind, or from the evils which tend to interrupt them. Many of the names of the common objects of sensation are also of Sanscrit origin; nevertheless, the simplest part of the Malayu language, and that which is most indispensable to its existence as a distinct tongue, is certainly not derived from the Sanscrit.

With respect to the connection between Arabic and Malayu, MARSDEN observes, that the latter language abounds with Arabic words, which writers affect to introduce, because this display of literary skill is, at the same time, a proof of their religious knowledge. He adds, that these words are generally legal or metaphysical terms, borrowed from the Koran or its commentaries, that they are never expressive of simple ideas, are rarely used in conversation, and, with few exceptions, seem never to have been thoroughly incorporated into the language. This account of theintroduction of Arabic into Malayu is unexceptionably just, excepting with respect to the use of Arabic terms in conversation, which is affected by all Malays who have any pretensions to literature. The number of Arabic vocables too, that have been introduced into Malay compositions, though certainly inferior to those of Sanscrit origin, are considerably more numerous than might be supposed from this statement; or rather, as in Persic and Turki, it is difficult to assign any bounds to their introduction, but the pleasure of the writer. It may also be observed here, that in the Malayu language, Arabic plurals are very commonly used as singulars, as often happens in Turki, and other dialects which admit of a mixture of Arabic. Marsden has mentioned another peculiarity, in which Arabic vocables, adopted by the Malayu, differ from adopted Sanscrit terms. While the Arabic words retain their peculiar and harsh pronunciation, those of Sanscrit origin are softened down, and assimilated with the rest of the language. This observation must likewise be taken with many limitations; for numerous words, of Arabic origin, are so completely assimilated to the Malayu pronunciation, that they are no longer capable of being recognized, even by a native Arab, unless by attention to their radicals; the

ain and ghain, in particular, excepting in religious terms, are very generally converted into Alif and Gaf, both in writing and pronunciation. It is certain, however, that Arabic words are naturally untractable, and are apt to have a foreign appearance when assumed into any other language, in spite of all modifications. The Arabic is a language so complete in itself, and so peculiar in its structure, that it is as little capable of coalescing neatly with any other language, as a curved line with a straight one.

MARSDEN has likewise hazarded an opinion, that the polish, which the Malayu has derived from Sanscrit or Hinduvi, has been obtained immediately from the natives of Guzerat, previous to the debasement of the genuine Hinduvi of the northern provinces, by the mixture of Arabic nouns, and the abuse of verbal auxiliaries. The resort of the people of Guzerat to Malacca, he adds, "is particularly noticed by DE BARROS. and other authentic writers; and it is well known that the Hindu language has been preserved with more purity in that, than in any other maritime province of India." To this, it is sufficient to answer that the Sanscrit vocables, adopted in Malayu and Guzeráti, are generally preserved purer in the former than in the latter; that the Guzeráti has no pretensions to be considered as a pure dialect of Hinduví, but on the contrary, is one of the very first that was corrupted by a mixture of Arabic; and that long prior to the period mentioned by DE BARROS. The Bengáli language itself, corrupted in pronunciation, as it certainly is, might have been more safely adopted, as the medium for the introduction of Sanscrit vocables into Malayu. Many Sanscrit words that are in current use in Bengali, likewise occur in Malayu, with almost the very same pronunciation.

Of this it is easy to produce a multitude of instances. The following are such as present themselves spontaneously:

. Beng.	Malay.
Tot'hapi · · · · · · · · · · · · · · · · · · ·	Tatapi but, however.
Punali	Pún · · · · · farther, again.
Tutkalé · · · · · · · · · · · · · · · · · · ·	Tutkala then.
Bongslı	Bangsu a race or family.
Kichhu or Kichhi	Kichi · · · · · a little.
Inggit, a signal	Ingat notice, memory.
Barung, a gift, a thing, a quality	Barang-barang, any thing.

But it is needless to adduce further instances; as the Malay history and the language itself, exhibit traces sufficiently clear, to direct us to the region, with which the Malays had the most frequent intercourse, at an early period, and from which their language seems to have received the most considerable modifications, and that is the ancient kingdom of Kalinga. Here I am again under the necessity of dissenting from MARSDEN'S opinion. He says, "It is evident, that from the Telinga, or the Tamool, the Malayan has not received any portion of its improvement." I apprehend that the express reverse of this opinion is evident; for the Malays, at this very period, know the Coromandel coast by no other name than Tanna Keling, the land of Keling or Kalinga: a multitude of compositions, current among them, profess to be translations from the Basa-Keling, or Kalinga language; and the Malayu language contains a great number of words that are Tamul, Malayálam, and Telinga; though neither Sanscrit, Hinduví, nor Guzeráti; and a variety that are only to be found in Telinga, the vernacular language of the Kalinga Desa.

For the same reasons that I infer an ancient intercourse to have subsisted between the Malays and Kalingas, I am induced to think that a very intimate connection subsisted, at a very early period, between the Malays and Javanese. Not only the proximity of the island of Java, and the constant intercourse between the Malays and Javanese, point to this connection, but the whole of Malay literature, the state of the language, and the whole series of Malay history, confirm it. It is from the Javanese that the Malays profess to have received all their earlier mythological fables; and a great variety of their books profess to be translations from that language: even in compositions professedly translated from the Keling language, the Javanese name of the story is often mentioned: and almost every Sanscrit term, that occurs in Malaya, is likewise to be found in the Basa Dalam Jawa, the high language of Java, or rather the language of the interior; though a multitude of Sanscrit words, current in the Javanese language, are not to be found in the Malayu. Besides many of the Malay states, and those of the greatest antiquity, are known to have been founded by Javanese adventurers, anterior to the arrival of the Arabs: and if the historical traditions of the Malays were better known, there are many reasons for supposing, that more of them would be found to claim the same origin.

The greater part of the words of Sanscrit origin, found in Malayu, do not appear to have been introduced through the medium of the Bali. In many instances, the Malayu form approaches nearer the pure Sanscrit than even the Bali itself; and many mythological stories exist in Malayu, and mythological characters are introduced in them, that as far as I have

been able to learn, do not occur in Bali compositions at all, nor in any of the Indo-Chinese languages of the continent.

But after assigning the Arabic and Sanscrit vocables to their propersources, a large proportion of words in the language will still remain unaccounted for; and these words too, expressive of the most simple class of our ideas, and the most remarkable objects in nature. This part of the language, which in comparison of the rest, may be termed native or original, MARSDEN attributes to what he reckons the original insular language of the South Seas; and this original language, again Sir W. Jones pronounces a derivative from the Sanscrit. That it is not Sanscrit, a very slender knowledge of the two languages is sufficient to evince; and if this original part should itself turn out to be derived, as I apprehend, from different sources, the idea of an original insular language will fall to the ground. Now there are a variety of reasons for supposing that this part of the Malayu language, which might be imagined the most simple and original, is in reality, more corrupted and mixed, than those parts which are confessedly derived from a foreign source. Several of the Malayu terms, which express the most simple and remarkable objects in nature, appear to be only gross auricular corruptions of true regular terms in the more ancient eastern languages, as Jawa, Búgís, T'hay, and Barma; and many of the simplest objects are not distinguished in Malayu by simple words, but by compound metaphorical and significant terms. The omission of the first syllable, in words derived from a foreign language, whether ancient or modern, is a frequent practice in the Malayu language: thus the Sanscrit Avatara becomes Bitara, and thus rumbúlum, the moon, in Javanese, becomes Bulun in Malayu-and Moputi, which signifies white, in

Búgís, becomes puti in Malayu. Again the metaphorical term mata-hari. which literally signifies the eye of day, is the only native term for the sun; though Chinkerwala, a corruption of the Bali term Chakrawala, has been adopted in the higher dialect, or poetical style, termed the Basa Dalam. The Malay term tuhin which signifies the aged, is used as synonymous with Allaht'aala, which they have adopted from the Arabic. A number of T'hay vocables occur in Malayu; but, for the most part, they are neither expressive of our simplest ideas, nor of the most remarkable objects in nature, excepting perhaps ku, the contracted term of Aku, I, in Malayu, which is the same in T'hay or Siamese. A variety, however, of important words seem to have been adopted from the Barma language, especially in the verbal auxiliaries; and in most of these instances, it may be observed, that the Malayu pronounciation coincides better with that of Tavay, or Tinnau, than with that of the Barmas proper. Thus the substantive verbal auxiliary of the present, adda, seems to be only a modification of the more simple da or dé of the Barma language. The past suda of the Barma syi dé, the auxiliary of the future jadi of the Barma rade, pronounced ya-dé or ja-dé, mâw, will or may, is a modification of the Barma Mi, or minh', and the permissive auxiliary léh of the Barma lé. Of the connection of the Malayu with any of the spoken dialects of China, it is more difficult to speak with accuracy, in the present state of our knowledge. Barrow, and some other authors of reputation, are inclined to attribute the origin of the Malay tribes to the nations of China; and that author observes, that many words, in the languages of Sumatra, are similar in sound to Chinese vocables; and that the corresponding words generally express the same idea in both languages. Of the value of this opinion it is not easy to speak in correct terms, for the proper Chinese

languages, are at least ten in number, and the dialects of Sumatra, vary almost as much, on a small scale, as the dialects of the Chinese; and to jumble together a number of corresponding words in all those dialects, may therefore be no very difficult task. Some coincidences there certainly are, between the Malayu and the Chinese-Mandarin language; thus in the first personal pronoun, saya and gua, which both signify I in Malayu, very nearly coincide with the Chinese seab and ngo, which have the same signification; but, on the whole, these coincidences seem neither very numerous nor important.

The Malayu language is extremely well fitted for being a Lingua Franca; or general medium of communication among the eastern isles, by the smoothness and sweetness of its tone, and the simplicity of its structure and construction. Its simple pronouns indicate rank and situation, and are almost as numerous as in Chinese; but the different dialects of the Malayu vary considerably, both in the use of the pronouns and of the verbal auxiliaries. It may also be observed, that the more mixed and impure any dialect of Malayu is, it is more verbose, more indefinite in its expressions, and more loaded with useless auxiliaries and epithets, which encumber the language, without adding either elegance, force, or dignity. The beauty and elegance of the Malayu is its simplicity; and the purity of its minor dialects may often be ascertained by this criterion alone.

The literature of the Malays, though the language is well adapted for poetry, is not distinguished by many features of originality. A degree of monotony and repetition occurs in all the compositions of the monosyllabic

languages, which has a great tendency to damp the ardour of composition, and extinguish poetical fire. The construction of the Malay is analogous to that of the monosyllabic languages, and there is also considerable similarity in the character of its compositions. The most favourite species of composition among the Malays, is the Pantún, a word which is generally translated song, but which perhaps might with more propriety be rendered simile or proverb, as it consists of a simile, proverb, or apophthegm versified, and its application. A Pantún is a rhyming quatrain, and is always restricted to four lines; hence it affects a kind of oracular brevity, which is very difficult to be comprehended by Europeans, who can seldom perceive any connection between the similitude and the application. The Malays allege, that the application of the image, maxim, or similitude, is always accurate; but it may be suspected that if one half of the verse be for the sense, it often happens that the other is only for the rhyme, as in the ancient Welsh triads or triplets, in which there is professedly no connection between the natural image and the moral maxim. These Pantúns the Malays often recite, in alternate contest, for several hours; the preceding Pantún always furnishing the catch-word to that which follows, until one of the parties be silenced or vanquished, or as the Malays express it, be dead, suda mati. Many of these Pantúns bear no inconsiderable resemblances to the Dohras and Kubitás in the ancient Hinduvi and Vruja dialects of Hindostan.

The Sayer is another species of composition, which is analogous to the Persic Musnevi. Moral poems, resembling the Pundnaméhs of the Persians, didactic works, or descriptive compositions and legendary or heroic narratives, are composed in this measure. The

Cheritra or Hikaiat, also denominated Chitra and Kuggawin, from the Javanese, is more generally written in prose, but frequently intermixed with verse, both in the measures of the Sayer and Pantún. These Cheritras contain the mythological stories current among the Malay tribes, and also fragments of their history, embellished in a poetical manner. The three great sources of all the Malay legends are the Javanese, Keling and Arabic languages, but in the compositions of latter date, the characters and incidents are so mixed, that it is not always easy to determine to which of these sources they ought to be referred. There is also one class of stories which the learned Malays term Susupún, I imagine from an ancient dynasty of Javanese princes to whom they relate. Some of these legends also coincide in the general story with those of the Siamese. as the Malay Selimbari with the Siamese Khúnp'hen; and the Hikaiat Shah Murdan with the Siamese Lin-tong. When characters familiar in Sanscrit mythology are introduced into the Malay legends, their adventures are generally transferred by the Malays to the interior of Java; and even Arabian characters are often represented as performing their adventures in the Malay countries.—Many of these narratives exist both in prose and verse, and of several there seem to be two editions; one derived immediately from the Javanese language, and which commonly contains a considerable number of Javanese vocables; the other from the Keling, which often contains a certain proportion of words more immediately derived from the Sanscrit and Telinga.

Of this latter class are probably the narratives termed Hikaiat Pindawa, or Pandu stories, which seem popular versions, or rather

abridgements, of the different parts of the Mahabh'arata; some of which, in reality, give the outline of the story, as faithfully as the popular abridgements of it, which I have perused in Mahrata, Tamul or Telinga. I am only acquainted with the following Malay Hikaiats of this class: Pindawa Lima, the story of the five Pandús; Pindawa Jaya, the victory of the Pandús; Pindawa Berjuddí, the gaming of the Pandús; Pindawa Pinjam bali, the Pandús borrowing a Palace; Pindawa berjewal kapur, the Pandús selling lime. The Hikaiat Maha Raja Buma of Purichu Nikassan, or account of the contest between Brahma and Vishnu, professes to be translated from the Keling of the dramatist Mungakarta NIGA'RA. The Sah-Sipundia, or history of a Keling RAJAH, is probably derived from the same source. The Hikaiat Sri Rama is reckoned a Susupun story, as are the Kusoma Indra or history of Indra, the Balinta Sena, the Sah Kobut, or history of the war with the Apes, the Rajah ular Ninggawong, the Hikaiat Bida Sari, the Hikaiat Raja Pikermadi or VICRAMADITYA CHERITRA, the Hikaiat Derma RAJAH, and the Hikaiat Kalil o Damna or Malay version of the Kalil o Dumna.

The following are Javanese relations, the Hikaiat Chikkil Wunnungputti Rajah of Kirripún, in the interior of Java, the Hikaiat Jarana
Tamasa, or the love adventures of a chieftain of Minjapahit, in Java,
composed by Andika, the Kilána Perbujaya Cheritra, or story of
a prince of Kirripún, the Misa Perbujaya Cheritra, the Misa
Kiamong Cheritra, or history of a Princess of Daha, in Java, carried
off by Tímu'ngu'ng Bapang Chakar Bima, and rescued by

BITARA KALA; the Jaran Kilinang Cheritra; the Ratu Bader Kisna Cheritra; the Panga Witin, or history of INU KURTAPUTTI; the Gambar Wira-Putra; the Gambar Sri Ratu Anúm-Aní Malayu, or history of GAMBAR SRI, Princess of Daha and RAJA ANU'M of Malaya; the Naga Bisaru, or history of a Princess of Daha, who was transformed into a snake, and confined in a lake, the Putti Kola Bisnu or history of VISHNU, the Kinta-Buhin, or history of a chief of Banjarkulin in Java, the Kilana Jayang Sittru, or history of RADIN JARAN TINANGLU, the Angling Dermavi Raja-Cheritra, and the Hikaiat Parang Púting, or history of the hatchet without the handle. To the same source are probably to be referred the following, if they are not purely of Malay composition; the Hikaiat Pelandúk Jinaka, or history of the sagacious hogdeer. The Hikaiat Búrúng Pinggey, or history of a wonderful bird. The Deva Mandû Cheritra, the Sayer Sri Batin, the Hikaiat Bian and the Hikaiat Rajah Boodák.

The following are modifications of Arabic narratives, accommodated, however, to the peculiarities of the Malayu manners and customs.—
The Hikaiat Amir Humda. The Hikaiat Rajah Kheiber, the chief of the Jewish tribe of Kheiber in Arabia. The Hikaiat Rajah Hinduk, the Hikaiat Mahummed Hanifah, the Hikaiat Khajeh Maimún, the Hikait Eblis, the Hikaiat Rajah Shah Murdan, the Hikaiat Sultan Ibrahim-ibn-Adhem, the Hikaiat Sekunder Dulkharneiní. The Koran is also translated into Malayu in the same paraphrastic manner as into Persic.

There are many Malayu compositions of a historical nature, though they are not so common as the classes that have been enumerated: such as the Hikaiat Rajah-bangsu, which I have not seen, but which has been described to me as a genealogical history of the Malay RAJAHS. The Hikaiat Malaka, which relates the founding of that city by a Javanese adventurer, the arrival of the Portuguese and the combats of the Malays, with Albuquerque and the other Portuguese commanders. The Hikaiat Pitrajaya-Putti, or history of an ancient Rajah of Malacca, the Hikaiat Achi, or history of Achi or Achin in Sumatra and the Hikaiat Hang-Tuha, or the adventures of a Malay chief during the reign of the last Rajah of Malacca, and the account of a Malay embassy sent to Mekka and Constantinople, to request assistance against the Portuguese. Such historical narratives are extremely numerous; indeed there is reason to believe that there is one of every state or tribe; and though occasionally embellished by fiction, it is only from them that we can obtain any outline of the Malay history, and of the progress of the nation. The juridical customs or traditions of the Malays have likewise been collected into codes of different antiquity and authority. Among those of the greatest authority are the Undang Undang, and the Addat Malayu. The most ancient of these regulations, however, appear to have been adopted from the Javanese and Bugis. Particular states have at different periods composed peculiar regulations; as the Addat Kiddeh, which were compiled by Rajah Shah Alum, in An. Heg. 1151.

No dramatic coompsitions, in the Malayu language, have fallen, as yet, into my hands, though many of them are said to exist. Scenic

exhibitions, termed "Wayang-wayang, were till lately, very common in the peninsula of Malayu, but are now represented as less frequently exhibited. The subjects of the Malayu dramas are the same as those of their histories and romances, from which, like the dramatic compositions of the Siamese and Chinese, they only differ in assuming the form of dialogue and soliloquy, the progress of the incidents being generally the same.

The following specimens of the Malayu Pantun and Sayer will exhibit the measure of the verse and the style of the composition. The first Pantun is a challenge to engage in a poetical contest. The rest exhibit the peculiar images introduced, and the manner of presenting them in the Pantun.

Tuan bulu, saya tumiang Marileh kita berkiler taji Tuan sapulu, saya súmbilan Marileh kita bersindír nyani.

You are a bamboo and I am but a slender twig; Yet come on, let us sharpen our weapons: You are as ten, and I am only as nine; Yet come, let us contend in ironical verse.

Boah dilama ber pangsu pangsu Samajuga bijinya merah Jangan tuan berpilis bangsu Samajuga daranya merah.

The pomegranate has many partitions,
But the seed is equally red in them all:
Do not give an undue preference to a race of men,
For the blood is equally red in them all.

Boah mamplum deri *Patani* Masa sabiji de kulum rúsa Tuan Islam saya Nasrani Sama sama manangung dúsa.

Of all the Mangoes of *Patani*A ripe one is but a mouthful to a stag;
You are a Moslem and I a Christian,
But we must equally bear our own faults.

Batang padi jangan de rúrút Kalu de rúrút rúsa batangnya Hati muda jangan de túrút Kalu de túrút rúsa badinya.

Shake not the rice stalk,

If you shake it the stalk is ruined:

Do not yield to youthful inclination,

If you yield your person is ruined.

Siri kúning deri *Patani*Pinang muda deri *Maláka*Puti kúning ana'k Nasrani
Itu membawa badin chilaka.

The yellow betel leaf of *Patani*, The fresh betel-nut of *Malacca*, A white yellow christian damsel, Bring a person to total ruin.

The following passage of the Sélimbari is given as a specimen of the Sayer verse, in which the Malay romances and moral poems are generally composed. In both measure and style they exhibit considerable resemblance to the ancient English and French romances; there is little variety of pause or accent, and the line consists indifferently of eight or nine syllables, one long syllable being reckoned equivalent to two short.

Tutkala tuan lunkah de natang Mata mamandang sepurti bintang Chabianya limpah gilang gumilang Teadaléh abang dapat mamandang Pipinya bagei paŭ de lalang Bersambút dangan lehernya jinjang Paras sepúrti gumbar dan wayang Barang de makan berbayang bayang Dahinya bagei sahari búlun Kinningnya bintúh bagei detillang Lalu de ambil jadikan túlun Mamàki chinchin permata Sélun Changgeynya panjang ber kílat kílat Sepùrti mutiara suda tericat Pinggangnya ramping terlalu chantík Leher laksana gumbar delarik Mungluarkan kata yang patáh chirdík Bibirnya bagei patey chicharík Teada mamáki laku ber saja Giginya itam bukkus ber baja Chartik moïlik gilang de Raja Bersúnting kútum búnga Seraja, Parasnya elók búkun kapalang Intahkan jiwa garangan hilang Kapada mata suda terpandang Teadaléh dapat kumbali pulang.

When my mistress looks forth from her window, Her eye sparkling like a star, Its brilliant rays glancing and glittering Her elder brother cannot support its lustre; Like the red mangoe is the hue of her cheek, Becoming her tapering neek, Traversed with shadows whenever she swallows: Her features like those of a statue or scenic figure, Her forehead like the new moon in its first day, Her eye-brows curved, so fair I could devour her, Long has she been chosen to be my mistress.

Wearing a ring set with gems of Ceylon,
Her long nails shining like lightning,
Transparent as a string of pearls,
Her waist slender and extremely elegant,
Her neck turned like a polished statue,
Eloquent in the enunciation of her words,
Her parting lips like the crimson red wood
Not by dress, but by herself adorned;
Black are her teeth stained with baja powder,
Graceful, slender, appearing like a queen,
Her locks adorned with the Seraja flowers,
Her features beautiful with no defect of symmetry,
My soul is often fluttering ready to depart,
Glancing eagerly forth from my eyes,
And quite unable to return to its station.

The character generally used by the Malays, is a modification of the Arabic; and, in addition to the proper Arabic alphabet, the Malayu uses six letters, of which one is the Persic ché, a second the slurred dal, of the Hindostani, two more correspond in power to the Persic and Hindostani pa and ga, but are written of a different form, and the remaining two, nga and nya, are peculiar in form, but correspond to the nasals of the first and second series of the Deva-Nagari alphabet. The Malays of Java, however, often use the Javanese character, to express their own language, as those of Celebes do the Búgís. In the Moluccas, the Latin character has obtained some degree of currency, even among the Malays, and is sometimes used by them to express the Malayu language.

The Malayu language was one of the first cultivated in the east by Europeans. The first attempt to form a grammar or dictionary of it, as far as I know, was made by DAVID HAEX, who published in Malayu and

Dutch, a vocabulary with some grammatical observations. At the request of Cardinal BARBERINI, the Dutch was rendered into Latin, and published with the Propaganda types at Rome, 1631, under the title of " Dictionarium Malaico-Latinum et Latino-Malaicum, operâ et studio DAVIDIS HAEX." This is a work of some merit, but seems to have been composed in the Moluccas, and inclines to the Basa Timor, or eastern dialect of the Malayu. The author has given a short list of Tarnata and Portuguese words, that have been adopted into Malayu, and some useful observations on the phraseology. Professor Thun-BERG, probably by mistake, mentions this work as published in 1707. It seems to have served among the Dutch, as a basis for similar compilations. The "Malaica Collectanea Vocabularia," or collection of vocabularies, was printed at Batavia in 1707-8, in 2 vols. 4to. and the "Dictionarium of te Woord ende Spraak bock in de Dutsche en de Maleysche Tale," at the same place in 1708, in 4to. A "Maleische Spraak-kunst" or Malay Grammar, was published by George Hendric Werndly, at Amsterdam, in 1726, 8vo. A " Nieuwe Woordenschaft in Neder-Duitsch, Maleisch en Portugeesch, was also published at Batavia in 8vo. 1780. The English have also contributed their share to the cultivation of this language. Bowrey's Grammar and Dictionary of the Malay language were published at London in 1701, in 4to. after the author had passed nineteen years in trading among the eastern isles. This is a work of great merit and labour, and though the English character only is used, yet the pronunciation and the signification of words are generally given with great accuracy. Bowney, however, had the assistance of the two eminent orientalists, Hyde and Marshall, in its composition, both of whom

were excellently skilled in the language. In 1801 was published at London, "A Dictionary of the Malay tongue, to which is prefixed, a Grammar of that language, by James Howison, M. D." The author founds his claims on a ten years acquaintance with the Malays, and their language. From the scarcity of Bowrey's work, I have not been able to compare it with the publication of Dr. Howison, but I suspect the additions of the latter to be neither numerous nor important. One improvement he has attempted, and it is the following. "In giving the Malay words in the Arabic character," says he, " we have followed the excellent example of Richardson and Gilchrist in their Persian and Hindoostance Dictionaries, and it is, in fact, the character used by the Malays themselves." But had Dr. Howison been acquainted with the Malay orthography, he would have perceived that this barbarous mode of converting the English character into the Persic, could be of no possible utility, either to an European, or an Asiatic. The Malayu has an established orthography, like the Arabic, Persic, and Hindostani; and this established orthography of Malay MSS. he has violated, repeatedly, in every page, not only by spelling the Malay words in a mode never used among the Malays themselves, but by omitting all their peculiar characters, and by using some Persic characters, as pa and ga, with which the Malays are unacquainted altogether. "A short Vocabulary, English and Malayo, with grammar rules for the attainment of the Malayo language," was published at Calcutta in 1798. The rules differ little from those which appear in Howison's Grammar, prefixed to his Dictionary, and the vocabulary generally coincides with it in the explanation of words, which are not very numerous.

Besides these works which have been printed, many Vocabularies and Dictionaries exist in MSS. in Dutch, English and Portuguese; and of these several are in my possession. Reland, in his "Dissertatio de linguis Insularum Orientalium," mentions a large MS. Dictionary which he had consulted, composed by Leidekker, a Dutch clergyman in Batavia, from which he has selected a specimen of the language. smaller Vocabularies of Malayu have been [published, chiefly by voyagers and travellers, with various degrees of accuracy. Being generally constructed in a very hurried manner, by persons devoid of a radical knowledge of the language, and often, as may be presumed, under the necessity of expressing their questions by a mixture of signs, they generally abound in very ludicrous errors and risible mistakes. Of this kind, many instances might easily be selected from LABILLARDIERE'S Malay Vocabulary, nor is that published by Professor Thunberg, in his travels, entirely free from them. Besides they are generally mixed with a variety of lingua franca, and other eastern words that are never received in correct Malayu.

The sacred scriptures, at an early period, began to be translated into the Malayu language. The gospels of Matthew and Mark were first published in the Malayu language and Arabic character at Enchusa, in 1629, in 4to. according to the version of Alb. Corn. Ruyl, and accompanied with the Dutch version. A second edition was published at Amsterdam in 1638. The gospels of Luke and John were published in Malayu, at Amsterdam, in 1646, according to the version of John Van Hasel. Van Hasel and Just. Heurn, in 1648, published "Psalmi

quinquaginta priores, Malaicé et Belgicé." The four gospels were republished, more correctly, with a version of the Acts of the Apostles, by JUST. HEURN, at Amsterdam, in 4to. 1651. Genesis was published in Malay, at Amsterdam, in 1662, according to the version of DAN. Brou-WER, and the New Testament, by the same author, in 1668. A second edition of Genesis was published in 1687. The four Evangelists and the Acts of the Apostles were published "in the Malayan tongue," at Oxford, in 1677, in 4to. and reprinted in 1704. Both editions are in the Roman character, and though Heurn's version was followed, yet the first edition had the advantage of being superintended by the learned HYDE, who has prefixed to it, a dissertation on the dialects of the Malay, and the method to be employed in studying the language. The Psalms, or " Psalterium lingua Malaica et Belgica," was published by VAN HASEL and HEURN at Amsterdam in 1689. The "Psalterium Malaice" was published at Amsterdam in 1735, with musical notes. A complete version of the Bible was published at Amsterdam, in Roman characters, in 1733, and this version was again published in the Arabic character, with the addition of the Malay peculiar letters, at Batavia, in 5 vols. 8vo. 1758, under the direction of JACOB Mossel, Governor General of the Dutch possessions in the East Indies. The persons who superintended the edition were Johan. Mauritz Mohr, and Herm. Pet-RUS VAN DE WERTH. A Malay catechism was also composed by GUSTAVUS WILLIAM BARON VAN IMHOFF, and printed at Batavia in 1746. This version of the Bible, is composed in the idiom of Batavia and Malacca, and I have heard it objected, that it is not very intelligible in Sumatra, and other Malay countries; but I regard it as quite impossible to form a Malayu version which would be approved in

point of style, in every Malay country at the same time, for so great is the diversity in point of style between the Javanese-Malayu and the Arabic-Malayu, that even in the same country, those who are proficients in the one, are often scarcely able to understand the other.

II. JAWA.—The Jawa, or Javanese language, is admitted by the Malays to be that of a more ancient nation than themselves, and at no very distant period seems to have been current through the whole extent of Java. The island of Java was formerly subject to a single sovereign, bearing the title of RATU AGONG or SUSUHUNANG, of the Susupún race, who generally held his court at Kirripún or Suryakarta. The nation was brave, enterprising and populous, and before the introduction of the Mahummedan religion, about the year A. C. 1400, their power was supreme in the eastern seas, and they extended their conquests to Sumatra, Borneo, and even as far as the Moluccas. Their voyages often rivalled the celebrated Argonautic expedition in the spirit of adventure. They became known to Europeans only in the decline of their power; yet it was still so formidable as repeatedly to shake the authority of the Portuguese in Malacca itself; and one of the dependent princes of Java was able to fit out a fleet of thirty large vessels, the admiral of which was so strongly built, as to be reckoned, at that period, cannon-proof. The Jawa language is subdivided into a great number of dialects, all of which may be respectively classed under the heads of Basa-dalam and Basa-lúar, the interior or high language, and the exterior or vulgar language of the coasts. Both of these differ considerably from the Malayu, which has adopted a multitude of terms from the Basa-lúar Jawa, or coast language of Jawa,

compared even with which the Malayu language appears to be a corrupt derivative. The language of the interior, however, or the Basa-dalam Jawa, has a close and intimate connection with Sanscrit, and expresses the simplest objects and ideas by vocables which seem to differ no farther from the Sanscrit than in the correct pronunciation necessarily produced by the use of a less perfect alphabet. The only Javanese that I have met, who could speak the Basa-dalam Jawa, was not able to write the character; yet I perceived, in forming a short radical vocabulary, that he used many Sanscrit words for common objects, which are not in use in any dialect of Malayu.

The alphabet of Jawa, is peculiar, and has no resemblance in the order of position to the Deva nagari. The number of characters are twenty, and these are varied by four vowels, e, i, u, o, but the real number of vocalic sounds is considerably greater. The Javanese character is written from right to left. The alphabet has been exhibited with considerable accuracy by Le Brun, and also by Reland; and it appears to have attracted the attention of the learned Hyde, as an "Alphabetum Bantamense" was found amongst his Posthumous papers, which had been written for him by the Ambassador of the king of Bantam.

Various ancient inscriptions and monuments are said to exist in the interior of Java, one of which was seen by Thunberg, at Paditúlis, near the blue mountains in the interior of the island, which consisted of eight lines and a half, engraved on a stone pillar, about two feet in breadth. The characters seemed, to him, to be written from right to left, and no person had been able to decypher them.

The dialects of Bugélen and Súndo, in Java, are said to be very distinct from the Javanese proper; and, from the first of them, the language of Súlú is supposed to be derived. This point, however, I have not been able to investigate in a satisfactory manner.

The literature of the Javanese is similar to that of the Malays, to which it seems to have given origin. Their Kuggawins or Cheritras, contain their mythology, and the adventures of their ancient heroes, and exhibit them in a style which has no inconsiderable resemblance to that of the Hindu Puráwas. The Javanese laws are arranged in codes of considerable antiquity, and celebrated among all the eastern islands.

The Jawa or Javanese language does not appear to have been regularly cultivated by Europeans, though some of the outlines of their mythological stories have been published in the transactions of the Asiatic Society in Batavia, as well as some vocabularies of the Jawa language. In the Dutch work, entitled "Begin en voortgang du Oostind Compan." or the rise and progress of the East India company, a comparative view is exhibited of the Javanese and Malayu languages. The Mahummedans have translated the Koran into Javanese.

The Bali and Madura languages, spoken by the inhabitants of the isles of the same name, appear from the best information I could procure, to be dialects of Javanese. The greater part of the inhabitants profess the ancient religion of their ancestors, resemble the Hindus in their appearance, wear the Hindu marks on their forehead, and the women burn themselves with their deceased husbands, according to the practice of the Hindus. Like the unconverted Javanese, they are peculiarly addicted to the worship

of Indra, Surva and Vishnu; but being neither in possession of their original religious books, nor of the extracts from them which have been adduced in the Transactions of the Batavian Society, I forbear to dilate on this topic at present.

III. Bu'cis.—The Búgis may be reckoned the original language of the island of Celebes, in the same manner as the Javanese is that of the island of Java. This ancient, brave, and martial nation, also, became known to the Europeans only in their decline, but there are a variety of circumstances, relative to them, which incline me to regard them as probably more ancient, in the eastern seas, than even the Javanese.—In courage, enterprize, fidelity, and even fair dealing in commerce, they are placed at the head of all the orang timor, or eastern men, even by the testimony of the Malays and Javanese themselves, and to compare to them, either the Chinese, or the continental Indo-Chinese nations, were to compare an ass, caparisoned in stiff and gilded trappings, to a generous courser. The nation, to which the Búgis exhibit the greatest resemblance, is the Japanese, but I have not been able to discover that the same similarity exists between their respective languages, which appears in their natural characters.

The island of Celebes was formerly divided into seven principalities, which were all united under an elective and limited sovereign. In this state, the island was the centre of eastern commerce, and extended its conquests, on the one hand, as far the island of Bali, and on the other, beyond the Moluccas. The Búgís language was assiduously cultivated, and their ancient mythology, traditions, laws and history, preserved in

books, the greater part of which are still extant, especially in the interior, among the tribes who still adhere to their ancient religion. On the sea coast, the *Mahummedan* religion prevails, and their books resemble more the later *Cheritras* of the *Malays*. In 1603, the *Mungkásar Rajah*, with the whole *Mungkásar* nation, by one of the most singular revolutions on record, renounced their ancient religion, and not only adopted Islamism, but compelled a number of the inferior states to imitate their example.

The Búgis language, on the coasts, is much mixed with the eastern Malayu, and is found pure only in the ancient books, and in the interior of Celebes. It exhibits strong features of originality in its vocables, but resembles the Malayu and Tăgâla in its construction. With Malayu, Javanese and Tăgalâ it exhibits many coincidences, but it contains, in its original state, almost no words of Sanscrit origin. With the ancient Tarnata, or Molucca language, it also exhibits some coincidences, but as I have had no favourable opportunity of studying the Búgis, and none at all of examining the Tarnata, with any degree of accuracy, I cannot prețend to determine the nature of this connection. Compared with the Malayu or Javanese, it has certainly more the air of an original than of a derivative tongue.

The Búgis alphabet consists of twenty-two letters, which are varied by the six vocalic sounds a, u, i, e, o, úng. The form of the character is peculiar, though it appears to belong to the same class as the Batta and Tăgalá. The power of the characters coincides nearly with that of the Javanese letters, though they differ a little both in number and in the

to differ considerably, in different states, but the alphabet also varies in the number and order of the letters. This proceeds from the adoption or rejection of the double consonants, which, though used in ancient and classical compositions, are seldom or never employed in letter-writing or common business; and hence, when a Búgís writes down his alphabet, it may vary, in the number of the characters, from seventeen to twenty-two. The only Búgís alphabet, printed or engraved, with which I am acquainted, is that which is given by Forest, in a corner of one of the maps of his "Voyage to the Mergui Archipelago." The letters are not formed according to the common round Búgís hand, but sharp angled, like the Rajang and Batta character; but in other respects it is sufficiently correct. The Búgís character is also employed frequently in writing Malayu compositions.

The language of the ancient Búgís compositions displays little diversity of dialect, but considerable variety exists in the language of conversation, in the different Búgís states. The dialect of Mungkásar or Macassar, the bravest and most renowned of the Búgís tribes, differs considerably from the Búgís proper; but the dialects of Lúbú, Enrékang, Mandar, and especially Tü-Rajja, seem almost to be different languages.

The Búgís language has never been regularly cultivated by Europeans, though the Dutch have formed abridgements of some of the historical relations in which it abounds. I have formed a short radical vocabulary of both the Búgís and Mungkásar, but cannot consider it as pure and unmixed, being derived from inhabitants of the coast, though some of them were very intelligent, and tinctured with their peculiar learn-

ing. From the same source I obtained the following list of the most popular Búgís compositions:

- 1. Nama Sagúni,
- 2. Batára Guru,
- 3. Guru De Sillang,
- 4. Tojorisúmpa,
- 5. Lasini Léléh,
- 6. Batára Latoh.
- 7. Oputolaga,
- 8. Araulangi,
- 9. Panori Tawgéh,
- 10. Lajiri-hoi,
- 11. Jamuri China,
- 12. Laurupoysi,
- 13. Rotun Nari-Tatta, Datu Nagima,
- 14. Lamaputoda-Turipo,
- 15. Latum Mullurung,
- 16. Lauhdun-Reö,
- 17. Lapa Bichara Lari Sindénaré,
- 18. Gutupatalotopalaguna,
- 19. Lappang Ngarisang,
- 20. Opu-Sangmuda,
- 21. Opula-Maru-Datu-na-Sopéng,
- 22. Látu-gétána Paju Limpoy,
- 23. Sawira Gading,
- 24. Adewata,
- 25. Rotun Dilíwung,
- 26. Data Pamúsu,
- 27. Lanaga Ladung,

- 28. Rotun-risosú,
- 29. Laga-ligo,
- 30. Tobala Onji,
- 31. Radaöng Labeh,
- 32. Lamada Romang,
- 33. Palawago,
- 34. Lawaju-Langi,
- 35. Lamapa-puli,
- 36. Datu-Mowunléh,
- 37. Lalúmpang Méga,
- 38. Lasawung-Langi,
- 39. Rotan di Papang,
- 40. Aji Lédéh,
- 41. Lamapang Aniro,
- 42. Latan-nari-jivi,
- 43. Bayapágúli,
- 44. Latupu Sallau,
- 45. Latúpúgulla,
- 46. Latan nari Pulang,
- 47. Satya-bonga,
- 48. Lasatúng-pugé,
- 49. Laga-lego Tokolinghéng,
- 50. Latan naroági,
- 51. Datula-Kila,
- 52. Lapanadora,
- 53. Rotan di timang toan lauiú.

The greater part of the compositions here enumerated, celebrate the deeds of their national heroes. But besides these, the "Addat," or codes of Búgís law are of considerable antiquity, particularly those of Gua, Waju, Boni and Mandar; and of great repute, among the eastern tribes. Several of them are translated into Malayu and Javanese. The Koran is also translated into the Búgís language.

The Búgis songs and romances are famous among all the islandsof the East; and, as far as I can judge, from a very limited knowledge of them, equally excel, in force of thought and fluency of versification. The use of rhyme is much less frequent than among the Malays. The melody of the verse depends on the rhythm, and the measure, in the historical poems, has often considerable similarity to some of the species of Sanscrit verse. The following lines are given as a specimen from the "Wépalétei," the only Búgis story in my possession.

Narétélangi napapabaja natokúnruna Wépalétei Lalo salíwang pasisi aji rito matindro sésimpangi Ríttomapiddang sisulingi matduadua mua kakana Wemapamaï natijinruna lalu salíwang rútúpanimpa Lakunatillum tirrimakudda Wullirijá va tó Sopengi Jillokasawa kakapamaï lúmpuna China tujuna Sabang Naranrukië Lajutenío sesumangutnah Passaüngé Mabaliada wemapamaï richinaruna kuëm muă Megama katu tudangpaliuna linna samanna tuributili Lolangungé turipasabi ujutanai tádillerlé Muarinili aülaün patalutuna lolangungé.

"In the morning twilight, when the day began to dawn, awaked Wépalétei, and went out of the palace, stepping carefully over those who were sleeping in regular rows, and those who were reposing irregularly, where her elder brothers were sleeping two by two, and along with her went out Pamai, her nurse and attendant. Wullindawa of Sopéng, went forth, and having opened the beautifully formed window, began to express her grief, "O! my elder sister Pamai, point out to me the situation of China (a district in Celebes) and show me in what direction Sabang lies, where Passaiingé dwells, the brother of Lajú Tenió." Pamai answered, "see how beautifully, the floating clouds rest on the stately

trees of *China*, as if they had been arranged by art. How beautiful are the lawns, which seem as if the earth had of her own accord accommodated herself to the request of man. How graceful wave the trees, with their foliage to the view, and the golden bamboos which enclose the lawns."

The Búgís songs are very numerous. Some of them are short proverbial maxims versified, and display considerable force of both thought and language, but I have not met with any which exhibit the peculiar character of the Malayu Pantún. They however exhibit many traits of the peculiar manners of the Búgís tribes. In the following specimens, the first alludes to a very common mode of punishing cowardice in Celebes, the second to the practice of poisoning weapons, and the last is a brief dialogue between a lover, going to battle, and his mistress, who presents him with her betel-box as a parting token.

Tikkungi talaséï joa maliäi
Tapasilaséï andraguru maliäi
Corripe militem segnem, castra,
Immo ducem timidum castrato.
Tillu ritumati balubalu rilléléang
Ria paserakané lanru tojirru
Túmera ritirilébu dadi aju ta Sangala.
There are three articles exposed to sale

In the clash of combat—the temper of the lance—

The form of the bullet—and the gum of the poison tree of Sunga.a.

EJA rípalínrúng ajamu marakka silla
Rikóä birítta poli riálapi síá
Raja-Túmpa ríkapéku muïnappa rínnawatíng—
Tilla returona salina lopalopaku
Sapahna rikko otáko tíndria pauwa
Timmúnroä parúparúng tíndria kampulajangang.

EJA! object of my secret affection, be not easily moved to grieve,
Whatever news arrive from the battle, till you see
My kris Raja Tumpa taken from my girdle, but then grieve for the dead—
—There are three prohibitions in my betel-box, with which you must conform:
They are wrapt up in the folds of the betel leaf,—talk not in the time of action—
Loiter not idly within your tent—skulk not as you advance on the foe.

The Mungk'asar poetry is characterized by the same features as the B'ug'is, and their national wars with the Dutch is said to be a favourite topic among the poets of that race. The following specimen, which is a poetical challenge, alludes to the diversion of cock-fighting, the favourite amusement of the nation.

Kérimi jangang riwaya bija jangang sundawa Niamiunné búngasa tinumbukkéya—— Bukki tonja kontasilla púna innukké núrúntu Tinumbukkéya bára éyapún nisillung.

Where is that courageous cock, that true game-cock, trained to combat—
For here is his match, full of youthful spirit, yet unconquered—
Let him then enter the lists with me, if he would be conquered;
Hitherto invincible, if I am ever conquered, it will be now——

IV. Bima.—The Bima language is used in the independent state of Bima, which includes the eastern part of Sumbawa, and the western part of the island $End\acute{e}$, which was childishly denominated Flores, by the early Portugueze navigators; and, after them, by succeeding voyagers and geographers. If my information is correct, the Bima language extends over the greater part of the island $End\acute{e}$. The Bima language is related in some respects to $B\acute{u}g\acute{i}s$ and Javanese, and on the coast is mixed with Malayn; but nevertheless it has strong pretensions to originality in its pronouns, verbal auxiliaries, and simple names of objects. In those instances, in which it exhibits a relation to the $B\acute{u}g\acute{i}s$, it seems to

be more closely connected with the Mungkásar than the Búgís proper, and yet, in sentences, the difference is striking, as in the following ex-"Where is the house of the Rajah?" Bikey kuassi rumata sangngaji. (Bima) Kéré tujuna embana kérayéng. (Mungk.) The sun, in Bima is termed Mata-liro; in Mungkásar, Matulo; in Búgís, Mataso. A man, in Malay, orang, is, in Mungkásar and Búgís, taii; and in Bima, do. The dialect of Sumbawa, which prevails in the districts of the island of that name, which are not subject to the Sultan of Bima, is of a more mixed character, and though it appears to contain many original vocables, yet the mass of the language seems derived from other sources, as Bima, Javanese and Búgis. Neither the Bima nor Sumbawa have any peculiar character, but use, indifferently, the Búgís or Malayu. I attempted to investigate the relations of both these languages, by forming comparative vocabularies of radical words; but not being able to procure any compositions in either of them, I do not flatter myself with having been able to obtain the purest native terms in every instance.

Specimen of the Búgís, Mungkásar, Bima and Sumbawa languages.

	Bugis.	Munghásar.	Bima.	Sumbawa.
	(ië	inukké	nahu	úk, kaji
1	{ iyo	iyo	lamada	déya
₩.e	ídi	ikaté	s ta	kita
thou	mu	ikau	angomi	mu
you	iko	ikau-ngásing	gomi	kau
he	eä neä	yenjo	seä	iya
they	eämanúng	yangasing	do édé	jija taünan
this	iäé	yeïnné	aké	ta
that	- yero, yetu	anjoreng	édé	to
who	iga, niga	_i nai	choété	saí
what	aga	apa	au	komépo

	Bugis.	Mungkásar.	Bima.	Suwbawa.
where	pegi	kemi	benchi	mépo
when	siana	ungapana	bunéëi	pidan
which	kéga	kerayéng	mabé	sangmép o
is	unka '	nia	wara	adda
will	mélo	eroko	né	roa
can	makúléh	kúlégi	vau	bau
sun	mataso	matalo ,	mataliro	matahari
moon	ulúng	búlun	wúra	bùlun
star •	vitóing,	bintoéng	tara	bintang
wind	anging	angi	angi	angin
rain	bosi	bosì	ura	újin
day	aso	alo	liro	ano
night	wunni	bungĭ	aimangadi	anopotang
morning	élé	beribasa	aimasidi	anosiop
evening	arawéng	karvéng	aimumbiyang	a noravi
year	taúng	taung	baä	terŏ
earth	tana	bútta	dana	bumi
water	uwaï	jéné	oi	aik
sea	tási	tamparang	moti	lét
river	salók	binanga	nanga	pungburang
wave	bomba	bombang	balúmba	omak
sand	kasi	kasi	sarei	garsék
mountain	búlúk *	monchong]	doro	olat
fire	api	pépé	afi	api
stone	batú	batú	watû	batú
gold	ulawúng	bulayeng	másanganga	bulayéng
silver	saláka	saláka	saláka	saláka
salt	păjé	chéla	síya	síra
iron	bissi	basi	besi	bosi
lead	túmera	túmbéra	tumbinga	tima
brass	túmbaga	túmbaga	romba	tomaga '
white	maputi	kébok!	lanta	puti
black	malôtong	leling	meë	písak
red ·	machillah	eja	kala	méra
yellow	maüni	kuni	moncha	kúning
green	monchombúlo	ijow)	awa	ijow
blue	magaü	gau	kolúbu	kolau
fish	balé	júku	londé	ampa

	Bugis.	Mnngkåsar.	Bima.	Sumbawa.
fowl	manu	jangang	janga	ayaın
bird	manu-manu	jangang-jangang	nasi	piyo
tiger	machang	machang	machan	machan
serpent	ula	ulara	sawa	ula
sheep	bembé	bembé	béë	badésa

This specimen of a comparative vocabulary, will convey some idea of the actual state of these languages, and of the actual variety which subsists in the language of conversation, especially on the coasts and maritime districts. Many of the words which occur in one language, are also found in others, though generally with some difference of pronunciation, and sometimes in an oblique sense. Frequently too, besides the terms which I have selected, which are only those of current use, several other words of the same signification might be found within the compass of the language. Thus, instead of anging, wind, in the high Búgís, salarúng occurs in this signification; and instead of saláka, silver, bulémata occurs in the high Mungkásar dialect. In the same manner, the personal pronouns in Búgís terminate their plurals in manung, and in Mungkásar in ngasing, both of which signify all. Thus, (Bug.) idimanung, (Mung.) ikuttengásing, we all (Búg.) ikomanung, (Mung.) ikaüngásing, you all. (Búg.) eämanung, (Mung.) yenjo yang-ngasing, they all. It is worthy of observation, that the Udia language spoken in Orissa, forms the plural of its personal pronouns by the addition of the particle mané, or manang, like the Búgís. Thus, in Udia, umbhémane, tumbhemaní, sémané or émané, signify we, ye, they.

V. BATTA.—The Batta language, which I regard as the most ancient

language of Sumatra, is used by the Batta tribes, who chiefly occupy the centre of that island. The singularity of their manners, and in particular the horrid custom of anthropophagy, practised by a nation in other respects more civilized than the Malays by whom they are surrounded, has attracted the attention of Europeans from the time of the earliest voyagers to our own times, but no very satisfactory account has ever been given of them, as a nation. The best description of them is certainly given by MARS-DEN, in his history of Sumatra, but even that is very imperfect and superficial, and at variance, in some respects, with the information I received from individuals of the nation. MARSDEN confines their cannibalism to two cases; that of persons condemned for crimes, and that of prisoners of war; but they themselves declare, that they frequently eat their own relations, when aged and infirm, and that, not so much to gratify their appetite, as to perform a pious ceremony. Thus, when a man becomes infirm and weary of the world, he is said to invite his own children to eat him, in the season when salt and limes are cheapest. He then ascends a tree, round which his friends and offspring assemble, and as they shake the tree, join in a funeral dirge, the import of which is, "The season is come, the fruit is ripe, and it must descend." The victim descends, and those that are nearest and dearest to him, deprive him of life, and devour his remains in a solemn banquet. This account is certainly more likely to excite incredulity than the account of Marsden, but it is the account of some of the Battas themselves, as well as that of the Malays in their vicinity. This inhuman custom is not, however, without a precedent in history, for Herodotus positively asserts, that the Paday or Padaioi, about 500 years before our æra, were not only addicted to the eating of raw flesh, but accustomed to kill and eat their relations when they grew old. Now it

is curious that Batta or Batay, for the name is written both ways, seems to be the very word which, in Greek, is rendered Padaioi, the letter p being almost always pronounced b among several of the Indo-Chinese nations, as in the word Pali, which is almost always pronounced Bali. The following is the account which HERODOTUS gives us of the Paday, or Padaioi. "Another Indian nation, who dwell to the eastward of these, (the Indian Ichthyophagi) are of nomadic habits, and eat raw flesh. They are called Paday, and are said to practise such customs as the following. Whoever of the community, be it man or woman, happens to fall sick, his most familiar friends, if it is a man, kill him: saying, that by his pining in sickness, his flesh will be spoiled for them; and though he deny that he is sick they do not attend to him, but put him to death, and feast on him. When a woman falls sick, she is treated in like manner by her most intimate female associates. They also sacrifice and feast on him who arrives at old age, and this is the reason that so few of them ever attain it, for they kill every one who falls sick, before that period."* This account of HERODOTUS certainly corresponds very minutely with the customs attributed to the Batta race, and renders it probable that this modern nation derive their origin from the ancient Paday or Batay. Neither is it more incredible that the Battas should eat human flesh as a religious ceremony, than that anthropophagy should be practised by the class of mendicants termed Agórah Punt'h, in Bengal, and other parts of India, which is a fact that cannot easily be called in question. It is surprizing that this singular custom has received so little investigation.

^{*} HERODOT. Lib. III. s. 99.

The names of the different Batta tribes, of whom I have been able to hear, are the following—

- 1. Batta Sebalúngú,
- 2. Batta Padembanin,
- 3. Batta Kwalu,
- 4. Batta Pannay,

- 5. Batta Toru,
- 6. Batta Bila,
- 7. Batta Kurúlang,
- 8. Batta Sipagabu.

In many of the Batta customs, considerable similarity to those of the Nairs of Malabar may be traced, as in the law of inheritance, according to which it is not the son, but the nephew, that succeeds.

The Batta language has considerable claims to originality, though it is not only connected with the Malayu, but also with the Búgís and Bima languages. In point of construction it is equally simple as the Malayu, but it is with the Búgís that it seems to have the most intimate connection. Indeed, the manners of the aboriginal Búgís are supposed to have exhibited no small resemblance to the peculiar customs of the Batta nation; for the Rajja or Tă-Rajja tribe, in the central parts of the island Celebes, are said still to eat their prisoners of war. The Batta language is the chief source of that diversity of dialect which is discoverable in the languages of Sumatra. The Rajang or Rejang dialect is formed by the mixture of the Batta and Malayu; the Lampung, by mixing Malay and Batta with a proportion of Javanese. The Karrows, who are subject to Achi or Achin, use only a slight variation of the Batta language, while the language of Achi proper consists of a mixture of Malayu and Batta, with all the jargons used by the Moslems of the east, whether Hindostani, Arab-Tamul or Mápilla. The Achinese resemble the Mápillas of Malabar more than any other tribe of Malays: they have long been connected with them as a people, and use many Mápilla terms currently in their language. The dialects of Néas and the Poggy islands, the inhabitants of the latter of which are termed Mantaway, by the Malays, have perhaps greater pretensions to originality than any of the dialects of Sumatra, but resemble the Batta more than any other dialect, Hence it may be suspected, that if we were acquainted with the books of the Battas, and knew the full extent of their language, in all its variety of expression, elliptic phrases, and obsolete words, the coincidence would be still more striking. There is probably, too, some diversity of expression in these dialects, even in their present state, for in forming a short radical vocabulary of the Néas language, I found it differed considerably in some instances, from the specimen published by Marsden, in the sixth volume of the Archæologia.

The Batta language has been cultivated by writing, from the earliest times, and numerous books are said to exist in it. I have only been able, however, to procure the names of the following—

- 1. Siva Marangaja,
- 2. Siva-Jarang-Mundopa,

- 3. Raja Isiri,
- 4. Malamdeva.

The Batta alphabet is peculiar, both in the form of its characters, and in the order of their arrangement. It consists of nineteen letters, each of which is variable by six vocalic sounds like the Búgis. In the power of the letters, it nearly corresponds with the Búgis and Javanese alphabets, the difference between all these being extremely trifling, consisting solely in

one of them expressing two cognate sounds by one character, or adding a new character, or the modification of a character, to express a double con sonant of frequent recurrence. But the Batta character has another peculiarity; it is written neither from right to left, nor from left to right, nor from top to bottom, but, in a manner directly opposite to that of the Chinese, from the bottom to the top of the line, as the Mexicans are said to have arranged their hieroglyphics. The material for writing is a bamboo, or the branch of a tree, and the instrument for writing the point of a kris, consequently their native forests always furnish them with materials in abundance, and instead of our pages and volumes, they have their bamboos and literary faggots. Marsden has given a tolerably correct Batta alphabet, in his history of Sumatra, but instead of placing the characters in a perpendicular line, he has arranged them horizontally, which conveys an erroneous idea of their natural form. The Battas, sometimes, read their bamboos horizontally instead of perpendicularly, as the Chinese and Japanese do their books, but the Chinese consider the correct mode of reading to be from the top to the bottom of the page, and the Battas from the bottom to the top. The lines at the top of a Chinese page are always regular, and if a line terminates in the middle of the page, the blank space is towards the bottom; now the Battas sometimes write on growing trees; and in this case, if a blank space occurs, it is towards the top of the division, a circumstance which determines what they consider as the natural position of their characters. The Batta characters, when arranged in their proper position, have considerable analogy to the Búgís and Tágála. The Lampung and Răjang characters coincide in power with those of the Batta, though the arrangement is different, and so far from being considered as original alphabets, they are only regarded,

as far as I could learn, by the Battas, as different forms of the same character. Indeed, the greater part of the differences they exhibit in form, may be fairly attributed to the different materials on which they write, and the different manner of writing; while the diversity in the number and arrangement of the letters may be referred to the same causes which have produced a similar variety in the $B\acute{u}g\acute{s}$ alphabet.

VI. TAGALA.—The Tagala or rather Tă-Gâla or the Gala language is among the Phillipines, what the Malayu is in the Malay islands or the Hindostani in Hindostan proper. A Spanish missionary, who possessed a minute knowledge of this language, has declared, that "The Tăgâla possesses the combined advantages of the four principal languages in the world. It is mysterious as the Hebrew; it has articles for nouns, both appellative and proper, like the Greek; it is elegant and copious as the Latin; and equal to the Italian, as the language of compliment or business." To examine rigorously the justness of this eulogium, is foreign to my purpose; it is necessary only to state, that it is considered by those who have studied it with most attention, as the radical language, from which the greater part, if not all, the dialects of the Philippines are derived. A missionary, who had resided eighteen years in these islands, and whose account of them has been translated from the Spanish, and printed by THE-VENOT in the second part of his "Relations de divers Voyages Curieuses. Paris 1664," declares, that though every district has its particular dialect, yet that these have all some relation to each other, such as subsists among the Lombard, Sicilian, and Tuscan dialects. There are six dialects of this kind, in the island of Manila, and two in Oton. Some of

these are current in several islands, but the most general are the Tăgâla and Bisaya, the last of which is very gross and barbarous; but the other more refined and polished. The opinion of this missionary is confirmed by Fra. Gaspar de San Augustin, who asserts, that all these particular tongues are dialects of one general language, in the same manner as the Attic, Ionic, and Eolic, are all dialects of Greek, or as the Italian, Spanish, Portugueze, and French, are all derivatives from the Latin.

The Tăgâla language has been cultivated only by the Spanish missionaries. The Tăgâla grammar of Fra. Gaspar de San Augustin, which has passed through two editions, was printed in 1703, and again in 1787. In his preface, he requests those who are desirous of more numerous examples in the language, to have recourse to other grammars, especially to that of Fra. Francisco de San Joseph, who is elsewhere called the Demosthenes of the Tăgâla language. A confessional, by the same author, in Spanish and Tăgâla, was published in 1713, and republished with the second edition of his grammar. In 1627, Fra. Alphonso â St. Anna published his "Explicacion de la Doctrina Christiana en lingua Tăgâla," and, besides these, many other religious compositions, both in prose and verse, have been published by the missionaries.

The Tagála alphabet consists of seventeen letters, three of which are vowels, and fourteen consonants. It is of the same class as the Búgís and Batta alphabets, and resembles them much in form; and, it is probably from some idea of this similarity, that Fra. Gaspar de San Autors asserts that the Tăgâla characters were derived from the Malays.

The Tăgâla character is as difficult to read as it is casy to write. It is written with an iron style on bamboos and palm leaves, and the Spanish missionaries assert, that the ancient mode of writing was from top to bottom, like the Chinese. From the circumstance of their writing with an iron style on bamboos, and from the resemblance of the letters to the Batta character, I should rather imagine that the ancient Tăgâla mode of writing was from the bottom to the top. The Tăgâla characters are still used in Comintan, and in general among the Tăgâlas who have not embraced eliristianity; and even by the Christian converts, they are still preferred in epistolary correspondence, though the contrary has been insinuated by some of the missionaries, who alledge that the roman alphabet was eagerly adopted, on account of its being more easily read.

The Tăgâla language, with a considerable number of peculiar vocables, and great singularity of idiom, is nevertheless to be considered as a cognate language with Malayu, Bûgîs and Javanese. Few languages, on a cursory examination, present a greater appearance of originality than the Tăgâla. Though a multitude of its terms agree precisely with those of the languages just enumerated, though the more simple idioms are precisely the same, and though the nouns have neither, properly speaking, genders, numbers nor cases, nor the verbs, moods, tenses or persons, yet the idioms are rendered so complex, and the simple terms are so much metamorphosed, by a variety of the most simple artifices, that it becomes quite impossible for a person who understands all the original words in a sentence, either to recognize them individually, or comprehend the meaning of the whole. In illustrating, therefore, the mecha-

nism of language, few languages are more instructive than the Tăgâla. The artifices which it chiefly employs, are the prefixing or postfixing to simple vocables, certain particles, which are again combined, and coalesce with others; and the complete or partial repetition of terms, in this reduplication, may again be combined with other particles.

The Tăgála forms the plurals of nouns by the word manga, as the Malays by banyá'k, both of which signify many, and seem to be the very same word, as the m and b are often pronounced in such an indistinct manner, in the Indo-Chinese languages, that they seem neither to correspond exactly to our m nor our b, but to an intermediate sound. To proper names, the Tăgâla prefixes the particle si, and ang to appellative nouns. The first of these corresponds to the Malayu sa, and the latter to yang, both of which are frequently used in Malayu in the same manner; but the Tăgâla combines both these with the particles nya and ka, the first of which signifies of it, and the latter to; and thus they form sina, kana, nina, nang, which (except the last, which is only a different mode of writing the Malayu nyang, of these, who,) scarcely occur in Malayu. The plural of nouns, in Malayu, is sometimes formed by the repetition of the singular, and sometimes this repetition is not complete, but consists only of the first syllable or syllables. This also occurs in the Tăgála, in which language banal, the Malayu banar, signifies just, true, and tavo signifies a man, corresponding with the Búgis tau. A just man, in Tăgála, is therefore, ang banal na tavo. or by the addition of another particle, and altering the position of the words, ang tauong banal. Now if we substitute the Malayu word orang, for the Búgis and Tagala term tau or tavo, we may render both these sentences thus; yang orang yang benar, and yang benarnya orang. In the plural, to signify, just men, the Tăgâla gives, ang manga tauong babanal, to which the corresponding Malayu phrase is, yang banyâk orang yang babenar; or again in Tăgâla, ang babanalna manga tavo, to which the corresponding Malayu is, yang babenarnya banyak orang.

The simple pronouns, which vary so much in all the dialects of the eastern seas, are nearly the same in Tăgála and Malayu, though it is not very easy to recognize them in the former language when combined with particles. Thus in the first person ako, ko, kita, kami are pure Malayu; and in the second person, mu corresponds equally with mo, while ikao and iyo seem to be only trivial variations of the Malayu ungkau and ayo. In the third person siya is only a variety of sa yéa like siappa for sa-appa, who, in Malayu; while niya, of him, his, is pure Malayu, as are itu, that, and nin of this, while yan, this, and yain, that, correspond to ini and anu. It is however chiefly in the verb that the peculiar character of the Tăgála language displays itself. The substantive verb is generally omitted altogether, and its meaning is denoted by implication, or the position of the words in a sentence. Sometimes, however, it is expressed by the article ay, the contraction of the Malayu adda, as Sino ang masipag? Who is diligent? or rather, Who is he who is diligent? Ang masipag ay si JA-GULA, it is JAGULA that is diligent, or literally, he who is diligent is one JAGULA.

The Tăgâla verbs being only names of actions or states of existence, they cannot properly be said to be either active or passive, neither have they any persons, numbers or moods: all these being expressed by particles prefixed or postfixed to the radical word. The principal par-

ticles employed in modifying the Tăgála verbs are also common to the Malayu language. The Tăgála particles are na, nag, mag, pag, ungm, y. an, in: those which correspond to them in Malayu are na, nyang, meng or mé, peng, yangmeng, yang, an, ahin. Their significations are radically the same, nor do they differ essentially in their simple application; but in the variety of modes according to which these particles may be combined with the verb, in its simple form, in its reduplicate form, in its semi-reduplicate form, and the variety of transpositions of letters and the changes of one letter for another, euphoniæ gratia, which all these combinations give occasion to; in all these, the Tăgála is infinitely superior to the Malayu, if there is any merit in a superiority which consists in greater intricacy.— The changes which occur in Malayu are few and obvious, in Tăgâla they are digested into an extensive and complex system, in which perfect familiarity with every form that the word can assume, not only by the addition of particles, but by the interchange of letters, is necessary to enable a person to detect the radical, which is often more disguised than in the most complex Arabic derivatives. Thus in Tăgála the root, tolog signifies to sleep, natalog ako, I slept, natotolog ako, I am sleeping, matalog, sleep, matotolog ako, I will sleep, katolog, pagkatolog and pagkakatolog, sleeping, natotologpa ako, I slept or was sleeping, ang natotolog the sleeper. ang matotolog, the person who is to sleep, nakatolog ako, I had slept: natologan, the having been asleep, natotologan, the being asleep, kato logan and katotologan, the being asleep, or act of sleeping, or the sleeping place: and for the plural nangatologan, nangatotologan, pangatologan, pangatotologan, &c. the particles na, ma and pa, becoming nanga, manga and panga, in the plural.—This is an instance in which the changes of the radical word

are very obvious; in the following they are less so, buhat to lift; bungmuhat, bungmubuhat, bubuhat, pagbuhat, nakabuhat, nabuhat, binuhat, binubuhat, buhatin, bubuhatin, nagpabuhat, nagpapabuhat, magpabuhat, magpabuhat, magpabuhat, pagpabuhat, pagpapabuhat, pinabuhat, pinabuhat, muhat, namuhat, namumahat, mamuhat, mamumuhat, pinamuhat, pinamumuhat, pamumuhatin. The addition of a greater number of particles would still produce a considerable number of additional metamorphoses, in which it would be very difficult to recognize the original radical buhat; but these may suffice to shew the genius of the language; and they will also tend to shew the extreme danger that any etymologist or grammarian incurs, who presumes to treat of one of the eastern languages without a radical knowledge of it, and even, in some degree, of its cognate dialects.

The greatest defects of Fra. Gaspar de S. Augustin's Tăgâla grammar proceed from his not having comprehended sufficiently the original simplicity of the dialect, nor even the simple artifice by which the greater part of these changes have been effected; and from having composed his grammar on European principles, without attending uniformly to the peculiar character of the language.

With respect to the original literature of the Tăgálas, the accounts of the Spanish missionaries are rather discordant. Sometimes they represent them as totally devoid of histories, and books of science; and sometimes they represent them as in possession of many historical poems; not considering that almost the whole body of the eastern history must be gleaned from poetical tradition. It however appears, clearly enough, from their own

accounts, that the ancient religious traditions of the Tăgála race, their genealogies, and the feats of their gods and heroes, are carefully preserved in historical poems and songs, which, in their youth, they carefully commit to memory, and are accustomed to recite during labour and long voyages, but particularly at their festivals and solemn lamentations for the dead. These original memorials of the race, the missionaries have, with pious care, attempted to extirpate, and have employed themselves sedulously in composing religious tracts, both in prose and verse, in the Tăgála, with the hope of supplanting the remains of national and pagan antiquity. Many psalms and hymns, and even some of the Greek dramas composed by Dionysius Areopagita, have in this manner been translated into the Tăgâla language. Among this brood of Tăgâla poets, the names of Fra. Antonio de S. Gregorio, of Fra. Alonso DE S. ANA, and of FRA. PABLO CLAIN, the translator of Kempis, into Tăgála, are celebrated, but the most illustrious of them all, says the reverend father GASPAR DE S. AUGUSTIN, is FRA. PEDRO DE HERRERA, the very Horace of the Tăgála language, as appears by his book of "Postrimerias." With the original Tăgâla poetry I am unacquainted, and I believe no specimen of it has been hitherto published. S. Augustin, in his grammar, treats, indeed, of Tăgálá poetry, but he piously confines his examples to the works of his ghostly brethren. He observes, that the Tăgálá verse, is only regulated by the rhythm of the syllables, and the similarity of the vowels in the close. This similarity of the terminating vowels does not amount to regular rhyme, for the consonants may be totally different, though the vowels are similar, as in the Spanish rhymes termed Asonantes. Thus laglag and taltal sút and cahuy, silip and bukkir, however imperfect as rhymes, are all that is required in the terminations

of Tägála verse. The Tăgála metres, adds the same author, are rather lyric than heroic, and he adduces specimens of several Latin and Castilian measures, imitated in that language, besides a legitimate sonnet addressed to himself, on publishing his Tăgála grammar by Fra. Joseph de el Valle. The following specimen from the Tăgála version of one of the dramas of Dionysius Areopagita, is an imitation of the comic verse of Terence.

Dito sa dakkilang kaharian nang *Grecia* Ay itong bayannang *Athenas* lalo, at mona Sa ibang manga bayang na sasakop baga Hangan saona, at magpangayon pa.

Besides the Tăgâla nation, there are several other races, which inhabit these islands, who differ considerably from each other in features, language, and the various relations of the social state; but concerning them, it is more difficult to speak with any degree of certainty. Such are the Pampangos, who reside to the north of Manilla; the Bisâyas, who are generally diffused over the Philippines; and the painted race, termed, by the Spaniards, Pintados, who are, by some, reckoned a branch of the Bisâya nation, and allied to the Tăgâla and Búgîs races; while, by others, they are supposed to be of the same origin as the Haraforas.

Of the Bisáya language, I have seen some lists of words. It appears to be either mixed with Tägála, or derived from the same source; but it is seldom possible to judge of any of the eastern languages from a few straggling specimens, formed in the hurried, inaccurate and incurious manner in which these are generally collected. For this reason, I shall offer no observations on the Pampango language, of which I have also seen

specimens; on the Biaju, Tirún, or Idán languages of Borneo; nor on the Harafora, or the Papua languages of the eastern isles. The Súlú tongue is a very mixed dialect, but is derived chiefly from the Malayu, Javanese and Tăgâla. Fornest, however, is inclined to refer its peculiarities to the The language of Melindenow, or Magindano, which nearly coincides with the Lanún dialect, is also a compound of Malayu, Búgis and Tăgála, with a certain proportion of the ancient Tarnata or Molucca language, which seems to have been an original tongue. The Biaju language is reckoned original, but it has no written character. The Biajús are of two races; the one is settled on Borneo, and are a rude, but warlike and industrious nation, who reckon themselves the original possessors of the island of Borneo. The other is a species of sea-gypsies, or itinerant fishermen, who live in small covered boats, and enjoy a perpetual summer on the eastern ocean, shifting to leeward, from island to island, with the variations of the monsoon. In some of their customs, this singular race resemble the natives of the Maldive islands. The Maldivians annually launch a small bark, loaded with perfumes, gums, flowers and odoriferous wood, and turn it adrift at the mercy of the winds and waves, as an offering to the Spirit of the winds; and sometimes similar offerings are made to the spirit whom they term the King of the Sea. In like manner the Biajus perform their offering to the god of evil, launching a small bark, loaded with all the sins and misfortunes of the nation, which are imagined to fall on the unhappy crew that may be so unlucky as first to meet with it.

The Tirún or Tedong tribes live chiefly on the north east coast of Borneo, and are reckoned a savage and piratical race, addicted to eating

the flesh of their enemies. With their language I am totally unacquainted, but it is reckoned peculiar. It is very probable, however, that they are only a tribe of *Idán*, whom, again, I imagine to be only a race of *Haraforas* or Alfoërs, as they are termed by the Dutch, who seem to be the most ancient and original race of all the eastern islands, excepting perhaps, the Papuas. The Idán are sometimes termed Marút; they are certainly the original inhabitants of Borneo, and resemble the Haraforas equally in stature, agility, colour, and manners. The Haraforas are indigenous in almost all the eastern isles, and are sometimes found on the same island with the Papuas or oriental negroes. They are often lighter in colour than the Muhammedan races, and generally excel them in strength and activity. They are universally rude and unlettered, and where they have not been reduced to the state of slaves of the soil, their manners have a general resemblance. In their manners, the most singular feature is the necessity imposed on every person of, some time in his life, embruing his hands in human blood; and in general among all their tribes, as well as the Idán, no person is permitted to marry till he can shew the skull of a man whom he has slaughtered. They eat the flesh of their enemies, like the Battas, and drink out of their skulls; and the ornaments of their houses are human skulls and teeth, which are, consequently, in great request among them, as formerly in Sumatra, the ancient inhabitants of which are said to have originally had no other money than the skulls of their enemies. The Haraforas are found in all the Moluccas, in Celebes, the Philippines, and Magindano, where they are termed Subano or Manubo; and the ferocious race mentioned by MARSDEN, who live inland from Samanka in Sumatra, and are accustomed to atone their own faults by

offering the heads of strangers to the chiefs of their villages, are probably of the same description.

The Papuas, termed by themselves Igoloté, but by the Spaniards of the Philippines, negritos del monté, from their colour and woolly hair, are the second race of aborigines, in the eastern isles; in several of which they are still to be found, and in all of which they seem to have originally existed. Some of their divisions have formed small savage states, and made some advances towards civilization; but the greater part of them, even with the example of more civilized races before their eyes, have betrayed no symptoms, either of a taste or capacity for improvement, and continue in their primitive state of nakedness, sleeping on trees, devoid of houses or cloathing, and subsisting on the spontaneous products of the forest, or the precarious success of their hunting and fishing. The natives of the Andaman isles seem to be of this race, as also the black mountaineer tribes of the Malay peninsula, termed at Kiddeh, Samang; at Perak and in the Malay countries to the N. W. of Kiddeh, Bila; while to the southward of Pera'k, and through the straits of Malacca, to the eastward, they are termed Dayak. The Papuas, or oriental negroes, seem to be all divided into very small states or rather societies, very little connected with each other. Hence their language is broken into a multitude of dialects, which in process of time, by separation, accident, and oral corruption, have nearly lost all resemblance. The Malays of the peninsula, consider the language of the blacks of the hills as a mere jargon. which can only be compared to the chattering of large birds; and the Papua dialects, in many of the eastern isles, are generally viewed in the same light.

The Arabs, in their early voyages, appear to have frequently encountered the Papuas, whom they describe in the most frightful colours, and constantly represent as cannibals. They are mentioned by the travellers IBN WAHAB and ABU ZEID, in the Silsilet-al-Tuarikh, translated by RENAUDOT, and nearly the same accounts seem to be repeated by Masudi, YAKUTI, and IBN AL WARDI. The following passage, which gives the name of one of the tribes, is adduced from the Persic treatise termed Seir ul Aklim, the author of which appears to have visited the eastern islands. After mentioning the great island of camphor, probably Borneo, he adds, "Beyond this are other islands of different sizes, among which there is one of considerable extent, inhabited by a race of blacks termed Kahálut, who resemble brutes in form, and when they can seize on a person. they kill and eat him. Of this practice, I have had experience, having escaped only by throwing myself into the sea; as the saying is, 'when you are going to be slain, throw yourself into the sea, and perhaps you may survive.' Even so it happened to me, for getting on the trunk of a large tree, I kept my hold for three days, when I was thrown by the force of the winds and waves on a desert shore, and after enduring much hunger and thirst, reached at last an inhabited country."

The tribes of the eastern islands exhibit a variety of singular and interesting appearances, not only in the civil and political, but also in the natural and moral history of man. If some of them appear in a naked and primitive state of barbarism, in others the vestiges of ancient art and science indicate, that they have suffered a relapse from a prior state of civilization. This is particularly obvious among the Malay, Javanese,

Batta, and Búgís tribes, among whom the polished style, and elevated sentiments, of many of their compositions, and their dexterity in some of the arts, especially the compounding and working of metals form a singular contrast with the neglect of personal morality and the relaxation of all the bonds of society; while ancient and wise regulations are in a great measure superseded by the most absurd and barbarous usages. Among the most barbarous of the Harafora and Papua races, there are some, who whether male or female, use no species of cloathing whatsoever, and consequently exhibit few traces of that modesty which is supposed to be innate in the human species. The same phænomenon, whether natural or produced by situation, is exhibited among the Biajus, the families of whom live constantly together, on the sea, in small boats. Vestiges of cannibalism appear to exist among the greater part of the rude tribes in the eastern isles, but the Battas of Sumatra, who are superior to the Malays in the knowledge of the arts and letters, have likewise preserved it; as well as the Tabúnka tribe in Celebes. Of many of the most absurd, unnatural, and barbarous of their usages, it is obviously impossible to form a just opinion in the present state of our knowledge, as we are totally ignorant of the spirit of them, and of the system of opinions with which they are connected. Some of them may find a parallel in India and China; and it may be observed, that both the Indian and the Indo-Chinese monuments contain many allusions to a state of society and manners on the continent, similar to that which subsists among the most babarous of the tribes of the eastern isles. Perhaps, too, we shall be disposed to regard, with some degree of complacency, the most absurd and the most illiberal portions of the religious systems of Brahma and Budd'ha, if we consider the dreadful superstitions that they probably supplanted, and the brutal state of savage existence which they exchanged for civil polity and social order. The Vanaras of Hunuman are reckoned a tribe of mountaineers, even by many of the Hindús. The barbarous, but brave and active Idán of Borneo, are termed Marút, which is the Sanscrit name of the fortynine regents of the winds, and companions of INDRA. The standard of the Battas is a horse's head with a flowing mane, which seems to indicate a connection with the Hayagrivas of Sanscrit history. In the present state of our knowledge of these tribes, however, it is not conjecture, but rigid and accurate description that is required; and in the present instance, it is not my object to consider their civil, political, or moral relations, unless as far as these affect the philological investigation of their languages and literature. As the chief utility that results from the examination of some of these ruder dialects, is to enable us to ascertain the limits of languages, more interesting and important, perhaps it may be thought that great minuteness would be misapplied on objects of such secondary importance. It must, however, be recollected, that success in important researches, often depends on the accuracy with which inferior investigations have been conducted; that in commencing an investigation it is not always easy to predict what will ultimately prove of superior, or inferior importance; and that, at all events, it is safer to bestow too much attention, than too little, on what must be the basis of historical investigation. all such inquiries, I therefore do not hesitate to adopt the sentiment of the learned LE Long, that "Truth is so interesting and satisfactory, when perceived, that no pains should be spared to discover it, even in the smallest matters."

VII. RUKHE'NG.—The Rukhéng is the first of that singular class of Indo-Chinese languages, which may be properly termed monosyllabic, from the mass of their radical words consisting of monosyllables, like the spoken dialects of China. These monosyllables are subjected to great variety of accent and intonation, in almost every instance: and require an accuracy of pronunciation and a delicacy of ear in speaking and comprehending them, far beyond what is requisite in the languages of Europe, or even in the polysyllabic languages of Asia. The Indo-Chinese languages of the monosyllabic class, borrow a considerable variety of terms from the Pali or Bali, which exists among them, as the language of learning and science: but in adopting these polysyllables, they accommodate them to their peculiar enunciation, by pronouncing every syllable as a distinct word. The Rukhéng is the language of the original inhabitants of Arakan, who adhere to the tenets of Budd'ha. Forming in ancient times a part of the empire of Magadha, from which they seem to have derived the name of Mug or Mauga, by which they are generally termed by the inhabitants of Bengal; and being from their situation more immediately connected with India; their language is by no means purely monosyllabic, but forms, as it were, the connecting link between the polysyllabic and monosyllabic languages. The Rukhéng race is admitted to be of the same radical stock as the Barmas or Birmans, and is understood to have greatly preceded that nation in civilization. The Barmas, indeed, derive their own origin from the Rukhéng, whom they generally denominate Barmá kyí, or the great Barmas, and they consider the Rukheng as the most ancient and original dialect of the Barma language. This idea is certainly correct, and it may be added, that the Rukhéng orthography and pronunciation are

neither so defective, nor so much corrupted as the Barma, and that consequently, in tracing the history of the language, the Rukheng is of much greater utility to the philologist. In another respect the language may be considered as purer; until their late conquest by the Barmas, the tribes of Rukhéng seem for a long period to have retained their independence, while the proper Barma tribes have suffered various revolutions. Hence the Rukheng retains more of its ancient form, and is less corrupted by foreign mixtures. The modifications, therefore, which it has received, are chiefly derived from the Pali or Bali, which was cultivated in the country as the learned language, and contained all their sacred books. The Rukhéng has accordingly adopted Bali words and phrases more copiously than the Barma, and has also preserved them in a greater state of orthographical purity. The pronunciation of the Rukheng is perhaps broader and grosser, but more articulate than the Barma; in particular it strongly affects the use of the letter r, which the Barmas generally convert into y, in their pronunciation. Such, however, is the difference of pronunciation between the two nations, that even in sentences, where the words are nearly the same, they are not easily intelligible to each other.

The Rukheng alphabet coincides accurately with the Deva-nagari system of characters in its arrangement, and very nearly in the power of the particular letters. The only variation of importance is, the expression of both the acute and grave accent of the vowels, as well as their common sound, in certain cases. This provision, however, does not extend to all the vocalic sounds in the Rukheng alphabet, but only to those

sounds of this species, which are of most general use. A similar contrivance for the expression of accent, occurs in all the alphabets of the monosyllabic languages, but varies, in extent, according to the exigencies of a particular language. Thus, in Rukhéng, after the simple alphabet, follow the combinations of the simple letters, with wa, ya, ra, and of h preceding them. Then follow some triple combinations of the same letters, after which are exhibited the common forms of syllables which terminate in a consonant, as ak, ang, aich, a't, a'p, and others of a similar kind; and finally the varieties of accent, as acute and grave, are presented, in those vowels and nasals which are chiefly subject to be influenced by them.

The Rukheng character has considerable similarity to the Barma, in the greater part of its letters. The following simple characters, however, g'ha, ja, j'ha, nya, ta, t'ha, da, d'ha, na, 'd'ha, ra, lla, as well as some of the more complex combinations, differ greatly from the respective forms of these characters in the Barma alphabet, and exhibit considerable resemblance to some of the ancient Canara characters. The Rukheng simple alphabet is exhibited with considerable correctness by Capt. J. Towers, in the fifth volume of the Asiatic Researches, though many of his particular observations, as well as general views, are far from being accurate; chiefly, it may be presumed, from the novelty of the investigation.

The Rukheng language, in the simplicity of its structure and expression, has great analogy to the Malayu. It has properly no numbers,

cases, nor flections, in its nouns; nor conjugations, moods, tenses, or persons, in its verbs. Many words have a substantive, adjective, or verbal signification, according to their position in a sentence; but in general, the names of objects, qualities, and actions, are sufficiently distinct from each other. The plurals of nouns are formed by numerals, or words expressive of plurality, as lú, a man; lú-súng-rawk, three men; lú-ăkúng, many men; lú àkúng-lúng, all men; mímma, a woman; mímma akúng-su, many women. Comparisons are made by particles expressive of number or quantity, such as mya, or mrét-té, much; akré and hlaré, very; prét, less, under; akúng, many. Cases are expressed by particles equivalent to the prepositions or postpositions of other languages, or by juxtaposition, which has often the force of the genitive in the Rukhéng language. Thus, a man's hand, may be expressed indifferently by lú-lúk, lú-hma-lak, or lú-chwá-lúk.

The simple pronouns are nga, I, ko, or mong, thou, and yang-su, he; the plurals of which are formed by the addition of ro, as nga-ro, we; mong-ro, ye; yang-su-ro, they. But in addition to these simple pronouns, there are various others, which indicate rank and situation, as in Malayu, Chinese, and the monosyllabic languages in general, which have all of them paid peculiar attention to the language of ceremony, in addressing superiors, inferiors, and equals. These ceremonial forms in Rukhéng are sometimes formed by particles added to the simple pronouns, and sometimes they are significant terms, such as servant, lord, highness, majesty, used pronominally, or rather in an absolute sense, without any expressed pronominal adjuncts; as in addressing a superior, when the terms asyang, lord, sir; sak'hang, highness; khang-părá, majesty, are employed.

The pronouns in common use in Rukhéng, according to this variety of ceremonial forms, may be thus exhibited.

I, we,	thou, ye,	he, they,
nga,	kó,	dang,
nga-ro,	móng,	yang-su,
nga-ro-hma,	nang,	yang-su-ro,
kyĕwéng,	awey,	su-ro.
akyĕwéng,	mong-hma,	
akyĕwéng-hma,	mong-ro,	
akyĕwéng-ro,	mong-ro-hm2,	
akyĕwéng-ro-hma,	nang-ro,	
akyĕwéng-tza-ré,	nang-hma,	
akyeweng tz'hang-ré-ro	nang-ro-hma,	
	awey-ro,	
	awey-hma,	
	awey-ro-hma,	

To explain the particular instances in which each of these pronominal terms is used, is not consistent with my present object, which is only to present a general outline of the structure of the language.

The moods and tenses of the verbs are in like manner expressed by means of particles, or significant words, like our auxiliary verbs. Such are si, hi, hi-ré and le-bi, is; bri and lé yákk, is, been; bri-ré and bri-kha-ré, was; míy, will; ra and ra-mé, may, can; yaung, let, permit; hi-sua, been. The position of these particles in a sentence, is often, however, a matter of considerable difficulty, and is one of the circumstances in which the elegance of style chiefly consists. The style chiefly affected in Rukhéng

composition, is a species of measured prose, regulated by accent and the parallelism of the members of a sentence. Rhyme, however, is not required, either in the terminating consonants or vowels, though it frequently occurs from the structure of the language. The general form of this measure seems to be four long syllables, each of which, however, is conversible into two short ones, or may have a short one interpolated before or after it. Thus, the passage adduced by Captain Towers, from the Manú Saingwan, as a specimen of his system of orthography in his "Observations on the Alphabetical System of the Language of Awa and Rac'hain," may be arranged.

Maha sámăta, Man grí chak-kráwălá, San'khra prain brain, Tain dain pï' tá, Tain-kha hnaik ch'haun, Khré sō táchhé, Shai'ch pá só T'hám-mă-sát, Cha ga do go, &c.

Sometimes, however, more complicated measures are employed in Rukhéng composition, in imitation of those which occur in Balí. Many interesting works are represented to exist in the Rukhéng language, but the greater part of them are translations from the Balí. The "Tillawar Cherita," is said to contain the historical traditions of the Rukhéng nation: the "Karik," composed by Anguli-Mala, and the "Thamma-sat or Dherma Sastra, contain their system of religious observances, and code of laws. The following is a list of the most popular Rukhéng compositions:

- 1. Raja-búntza,
- 2. Raja-wongtza,
- 3. Témi,
- 4. Némi,
- 5. Janaka,
- 6. Suwanna-asyang,

- 7. Bhuridat,
- 8. Tzaingdá-gúngma
- 9. Sada-shyei'ch-chaung,
- 10. Mahó,
- 11. Uni-nga-gyaing,
- 12. So'p-soung-gyéng,

- 13. Bhuridat-kapyá,
- 14. Bo-thi-hmain-déi,
- 15. Wé-saing-dara,
- 16. Saing-we-ra,
- 17. Krauk-ché,
- 18. Nara-cho,
- 19. Athi'k-bala,
- 20. Abhi-dam-ma,
- 21. K'hunei'ch-kyéng,
- 22. Para-ma-saing-gou'k-kyéng,
- 23. Maha-Raga-t'ha-kyéng,
- 24. Sapa-kyéng,
- 25. T'ham-ma-sat-kweing-khya,
- 26. T'ham-ma-sat-kra'k-ru.
- 27. T'ham-ma-sat-Manú.
- 28. T'ham-ma-sat-krudaing,
- 19. Logasara,
- 30. Sa-bri-hla,
- 31. Taing-t,haü,
- 32. Radana-hrwé-khri,
- 33. Radana-paing-gung,
- 34. Rudana-paddaing,
- 35. Radana-kweing-khya,
- 36. Radana-powng-khyowk,
- 37. Ba-na't-sa,
- 68. Kraing-ma-tei'ch-p'hak-powng-wat'hu,
- 39. Nga-tzí-săda-pring-do,
- 40. Ga'p-p'ha-kyéng,
- 41. Lakhana-di-ba,
- 42. Noma-kapya,
- 43. Nga-chaing-braing,
- 44. Rama-wut'hú-cha,
- 45. Bramasara.
- 46. Bud-dho-wa-da,

- 47. Péda-sow't,
- 43. Mungala-sow't,
- 49. Khunei'ch-ra'k,
- 50. Khunei'ch-ra'k-parei'p,
- 51. Patha-wi-jéya,
- 52. Sa-gra-ú-ch'howng,
- 53. Lé-keweng-u-ch'howng,
- 54. Sit-t'ha-da-nú,
- 55. Sat-powng,
- 56. Sat-yéng,
- 57. Sat-hnewaing.
- 58. Sa hrwé-k'hé.
- 59. Moé-tó-krang-cha.
- 60. Gu-waing-podi-mowng-cha,
- 61. Thi-to-padé-sa,
- 6.2. Noma-ko-ga-tha,
- 63. Täché-hnei'ch-ra-si,
- 64. Khowng-gri,
- 65. Khowng-láp,
- 66. Khowng-ngé.
- 67. Tă-hnaung-gra,
- 68. Mé-t'haung-gra,
- 69. Su-mé-tha.
- 70. Rewatta-cha,
- 71. Aswa-pida,
- 72. Prowng-bra,
- 73. Owng-pa-di-cha,
- 74. Paing-pru-cha,
- 75. Uga,
- 76. Mowng-chwa-cha,
- 77. Cho-ré.
- 78 Ya't-ré.
- 79. Lúng-di-cha.

From this list, it is evident, that the subjects of some of these works are the adventures of characters well known in Sanscrit mythology, as the Rama Wut'hu or history of RAMA, the Budd'ho-wa-du or history of the

Avatar Budd'ha; others of them seem to be only Rukhéng versions of well known Sanscrit compositions, as the T'hi-to-pa-désa, or Hitopadesa, the T'ham-ma-sut-Manu, or Dherma-sastra of Menu. The Suwanna-Asyang, is the popular story of Suvurna Sringi, or the golden cow, formed by the Brahmen Sumbukara Misra, and presented to Raja Mukunda Deva CAJAPATI. The BHURIDAT is the history of Raja BHURIDATTA of Magadha, mentioned in the Maha Bharata, and the Bhuridat-kapya, or Bhuridutta-kavya, is a poem on the same subject. The Raja-buntza is the Rukhéng edition of the Raja-Vumsavali, the Raja-Wontgza is a different work on the same subject, and the Patha-wi-jéya seems to be the Prit thuvijeya. Of the modifications they have received in the process of translation, I have hitherto had little opportunity of judging, but as far as I have been able to investigate the subject, not only the style, but the incidents and progress of the Sanserit narration is generally altered, to render them more illustrative of the ascetic doctrines of the Budd'hist sect; such as the guilt of killing animals, even accidentally; and the perfection acquired by Rishis in solitary retirement, by means of sublime penance and meditation.

The Rukheng language has never been cultivated by Europeans; the observations on its alphabetical system by Captain Towers, and the short specimen of its vocables in Dr. Fr. Buchanan's "Comparative Vocabulary of some of the Languages spoken in the Burma Empire," both in the 5th vol. of the Asiatic Researches, being all that has been published concerning it in any European language. The specimen given by Dr. Fr. Buchanan, only varies from the Barma in seven words out of fifty, and these are only varieties of pronunciation, excepting "looshee,"

a child, which is also Barma, and mateinay, which seems to be an error, as it does not signify to sit, either in Rukhéng or Barma, but literally "does not stand," the proper Rukhéng term being ra't chowk. The words in the vocabulary certainly exist in Rukhéng as well as in Barma; but in some instances different words are in more general use, in the former; as ahri, long, instead of shé, and po-mro-naing-grong, beast, instead of The Rukhéng pronunciation, sometimes too, is modified by taraitzan. the Burma, and the letter r is almost always omitted in the specimen. though it is a distinguishing characteristic of the Rukhéng pronunciation. Thus, the Rukhéng requires mri-gri, earth, instead of myægyee, in the specimen; kvi, great, instead of kyee; kripamó, foot, instead of kiæpamo; krow'k, six, instead of kiouk; kri, a star, instead of kyay, and ni, the sun, instead of nay. These errors, however, are not to be attributed to Dr. FR. BUCHANAN, nor detract, in the least, from the merit of his exertions in commencing the investigation; they evidently proceed from the inaccuracy, hurry, and indistinct pronunciation of his Barma assistants, and in his situation were perhaps not to be avoided, unless by attending to the native orthography.

Dr. F. Buchanan has also exhibited comparative specimens of two mixed dialects, spoken in Arakan; the first termed Ruinga, spoken by the Moslems of the country, and consisting of a mixture of Arabic, Hindi, and Rukhéng; the second, termed Rusán, used by the Hindús of Arakan, who adhere to the system of Brahma, and formed by a large proportion of corrupted Sanscrit and Bengali, united to a comparatively small portion of Rukhéng. The dialect of the province of Yo, as it is pronounced by the Barmas, and Rô as it is termed by the Rukhéng, is only a slight

variation of the Rukhéng, which it approaches much nearer than the Barma. The range of mountains to the north and east of Rukhéng is inhabited by a race termed Khéng, by the Ruk'héng and Barma tribes, or as it is written by Dr. Fr. Buchanan, Kiayn; but who term themselves Kolún, and whose language is peculiar, having little or no affinity to either Rukhéng or Barma. From the two names, Ró and Khéng, the name of Rukhéng is generally derived; but the national name of the Rukhéng race is Ma-rum-ma, which seems to be only a corruption of Maha-Vurma; Vurma being an epithet generally assumed by the tribes of Kshatriya extraction. The inhabitants of the mountains between Rukhéng and Chatigan are termed Sa-mowng-syang by the Rukhéng tribes, and are asserted to speak a different language. They are probably only a division of the Khéng or Kolún. Whether these are the same with the Kúkís, who inhabit the high ranges of hills to the N. E. of Chatigan, I have not been able to determine. In the able and curious description of this singular race, given by J. MACRAE, Esq. in the seventh volume of the Asiatic Researches, the languages of the Kúkí and Mug, or Rukhéng races, are said to be so intimately connected as to be mutually intelligible. That the two adjacent tribes should be mutually able to understand each other, is very probable; but that their respective languages are connected, in this instance, I apprehend to be very dubious; for in a specimen of above 500 radical terms of the Kúki, which I owe to that gentleman's politeness, I find very few which are similar to the corresponding Rukhéng, or that were understood by an intellegent native of Arakan. The subject, however, requires further investigation, and there seems to be no person better qualified than Mr. MACRAE, for prosecuting the inquiry, both by his abilities, and his situation.

VIII. BARMA.—The Barma language is used by the great and powerful nation of the Barmas. The name of this nation has been written differently, by almost as many authors as have mentioned it, while no person seems to have thought it worth his while to inquire how the Barmas wrote their own name. This they constantly write Barma, though from affecting an indistinct pronunciation, they often term themselves Byamma-Bomma, and Myamma, which are only vocal corruptions of the written name. AMADUTIUS, however, in his preface to the "Alphabetum Barmanum seu Bomanum," with equal ignorance and confidence, denies flatly, that any nation, country, city, or language, exists, which by the natives themselves is denominated Barma. This name, he asserts to have been introduced solely by the ignorance and vicious pronunciation of Europeans, since, says he, by the analogy of the language, the nation is denominated Bomah, the great nation, from bo, the head, a chief, and mah, a man. This silly vapouring etymology is, however, entirely averse to the established orthography of the Barmas themselves, and only worthy of P. PAULINUS, or a modern Frenchman.

The Barma language, like the Rukhéng, in its original state appears to be purely monosyllabic, but it has borrowed freely from the Balí, and in imitation apparently of that language, it has sometimes formed words of some length, by the coalescing of its original monosyllables. Being completely devoid of every species of flection, whether in nouns, pronouns, or verbs, its construction is extremely simple, and depends almost solely on the principle of juxta-position, like its cognate dialect, the

Rukheng, which it resembles in structure. Its pronouns and particles are peculiar, its idioms few and simple, and its metaphors of the most obvious kind; but it is copious in terms expressive of rank or dignity, and the rank of the speaker is characterized by the language he uses.

The Barma alphabet corresponds to the Ball, and is regulated by the same principles of accentuation. In point of form, it has considerable resemblance to the Canara, Singala, and Telinga alphabets, but is rather more simple in the formation of the character. Carpanius, in his "Alphabetum Barmanum seu Bomanum," is inclined to derive the Barma character immediately from the square Ball, used in Ava, and both of them from the Hebrew, through the medium of the Persic. Amadutius, improving on this idea, or rather adopting that of Bayer, seems to be desirous of deducing both, as well as the Malabar or Malayalam, from the Armenian, a character to which they have searcely the remotest resemblance, and the orgin of which, is itself involved in great obscurity.

The character of the Barma language has a very considerable effect on the style of the compositions it contains. Repetitions of the same turn and expression, are rather affected, than shunned; and a kind of naked strength and simplicity of phrase, with short sentences, pregnant with meaning, are the greatest beauties which the language admits of. "The Bomans," says Carpanius, "in their poetry, are more careful of preserving similar terminations, than an equal number of syllables, and use this style, particularly in treating of religious subjects." The fact, however, is, that the similarity of termination is neither sought, nor shunned; but recurs from the genius of the language, very frequently. The

style of the principal Barma compositions is a species of measured prose, regulated almost solely by the accent, as in the Rukhéng, the different dialects of Chinese, and the other monosyllabic languages. The tone of polished conversation requires an approximation to this style of composition. The verb is generally placed in the close of the sentence, and the defect of conjuctive particles, to connect the different members of a sentence, renders a considerable degree of repetition absolutely necessary to prevent confusion.

The Barma language has been highly cultivated in composition, and contains numerous works in religion and science. Besides numerous books on astrology, mythology, medicine, and law, in the latter of which the most important is the Dam ma-Sat kyee, or great system of justice, with the Constitutions of the Barma princes. The Barmas are asserted, by Dr. BUCHANAN, to possess numerous historical works, relative to the different dynasties of their princes, the most celebrated of which is the Maha-raja-Wayngee. "These people," says he, "have also translated histories of the Chinese and Siamese, and of the kingdoms of Kathee, Koshan-pyee, Pagoo, Saymmay and Laynzayn." On the importance of such works, supposing them to be strictly of a historical nature, it is needless to dilate. pears probable, however, that many of them may resemble the Hindú Cheritrás. The Barmas possess numerous smaller poems and songs, and even natakas, which may probably be derived from Sanscrit tradition, as the adventures of RAMA in Lunka, are favourite topics in their dramas. The following are some of the most popular works in the Barma language, and several of them, I find, exist equally in Rukheng, Siamese and

Malayu. Some of them are purely mythological, but others are Cheritrâs of the historical class.

- 1. Jina-Mana,
- 2. Nunda-Jina,
- 3. Nundaguma,
- 4. Chundaguma,
- 5. Narada,
- 6. Temi,
- 7. Nemi,
- 8. D'hammapada,
- 9. Namagara,
- 10. Logasara,
- 11. Longanit'hi.
- 12. Maho-Sut'ha,
- 13. Wesundura, or story of Rajah Vesundara.
- 14. Paramik'han,
- 15. Chudongk'han,
- 16. Bungk'han,
- 17. Kado-k'han,
- 18. Chatu Damasara,
- 19. Sangwara, termed in Siamese, the Sut'hon,
- 20. Bhuridat,

- 21. Kinara-pyeu, or account of the celestial Kinara,
- 22. Malinméng Wut'hu, or history of Rajah Malin,
- Jinaka, or history or Rajah Jinaka, denominated in Siamese Maha-Chinók.
- 24. Yuwaji, termed in Ruk'héng Ruari,
- 25. Swipri-wéng-khan,
- 26. To-twék-k'han.
- 27. Munigungsala,
- 28. Anusasana,
- 29. Suan-nashan,
- 30. Wit'hora,
- 31. Kagileinga,
- 32. Sada-syi'ch-chaung,
- 33. Anaga-atwéng,
- 34. Ngare-khan or description of Naraka,
- 35. Attagatt-lénga,
- 36. Hmát-chew bón'g.

The Barma language has some variety of pronunciation in the different provinces of that empire. The dialect of the Yo, situated on the east of the Arakan mountains, has been already noticed. The Tanéngsari, or language of the inhabitants of the Tanaserim district, denominated Tinnaw by the Siamese, also differs considerably from the common Barma. The Tanéngsari certainly have many peculiarities of expression, and many words in common use among them, are at present obsolete among

the Barmas of Ava, but the majority of them are to be found in the Barma writings, and the Tanéngsári are therefore reckoned to use an obsolete dialect, rather than a peculiar language. I have already mentioned in what respects the Barma and Rukhéng are related to each other. The following comparative list of terms will show more particularly the extent of their difference in current use.

<	Rukhéng.	Barma.
Month	khanang	piját
back	nau-kúng 🛫	naó ,
knee	pa-chhei'ch-tú	du
bone	aro	ayo ·,
heart	alúng	na-towng
seeing	mrang-ré sû	myang-su-ha
smell	kaing-ré	chan-jan
touch	pait-té - 😩	seing-su-ha, thí
trouble	ma-ré	khék
strength	, akri 🧠 🥫	akyan,
marriage	maya-ni-chá'p-té	lék-t'hat-gya,
life	ahrang	asyang -
circle;	g apawk 100	akwéng
storm	- muķri	moseik
hail	mu-gyowk	mó-si
morning	mä-sowk-tha, nyí-ga	mă-neik,
evening	nya-ja	nya-né, né-é
веа	mreik	péng-lé
dust	mré-moh : ? a-	amóng, myé-mong
mud	ta-mai .	suin
fire	ming	mi
length	hré	shi
ditch	mroung	kewng
gold	hrui -	su ć
silver und of the	înuë	ngoé
horse	mroung,	miyin
fowl	krak	kyiuk
cock slott's se	lkrak-piha	kyiuk-t'hi

	0_1000 = 00	Rukhéng.	Barma.
	hen	krak-ma	kyiuk-ma
	anake	mrui	myewé
	sail	rowak	yewék ilani di addin fira a
	bed ·	săloëng	kadeng n
	taylor	ang-gi-dap	khyowk-sanıa
	white	aprú	pyú
	hard	kyang	má
	vegetable	haung sei'ch ruakk	heing-ewék
	4	ordinary and a second of the	ayeng-su-ha
	first	ayenga akha	ayeng-da-ha
	second	hnei'ch-khu-chowng	hnei'ch-khu-su-ha
	I	akyêwĕng-hma	kyewen-noú'p
	we	akyeweng-ro-hina	kyewen-do
	thou	mong	méng
	you	mong-ro	méng-do
	he is the	yang-su	su U
	they 1	yang-su-ro	su-do
	this	dé-ga	di-ha
	that	t'ho-ga	ho-ha
	who	x su	bélú
	what	jàma	baha
	which.	asu	bésû, béha
	if	t'ho-shyang	hléang .
	though	la-lá't-hléukk	phye'ch-hleang
	about	le'khi-gra't-me	pát
	many	akúng,	apóng
	perhaps	kaing-ra-bya	kán-hné
	yes -	how't-payak	ħou't-k€
	no / / · · ·	ma-hí	ma-si
,	is ,	hí	si
	was	bri	pyi
,	has been	hi-yak	sî-bi
	I ought to do it	akyeweng-louk-kowng-yak	kewen nou'p-louk-gowng-de
	I will do it	akyeweng-ro-hma louk-ra-ré	kewen-nou'p louk-ya-dé
			OCT THE REAL PROPERTY.

1.

The Barma affects a more delicate, but at the same time inarticulate pronunciation than the Rukheng, and less conformable to the actual ortho-

graphy of the language. This is particularly obvious in the conversion of ra into ya in Barma; but the $Rukh\acute{e}ng$ itself is not devoid of its peculiarities, among which may be mentioned the conversion of sha into ha. Thus the word which is written $shr\acute{e}$, in both languages, is in Barma pronounced syi, and in $Rukh\acute{e}ng$ hri.

The specimens which Dr. Buchanan has exhibited of the languages of the Kariéng or Karayn, as he writes it, and of the Kiayn (which seems to be the same word softened in the pronunciation,) the rude tribe which denominates itself Kolún, certainly show considerable analogy to exist between these dialects and the Barma proper. Some Barma words seem, likewise, to be discoverable, in the specimen he has given of the language of the Moitay, or inhabitants of Kassay, as mee, fire, nga, fish; and more copious and correct vocabularies, with a more exact orthography, would probably exhibit a more intimate connection; but a certain degree of acquaintance with the grammatical principles of every language, and with its alphabet and orthography, if a written one, is absolutely necessary to give any philological value to a specimen of its words. The inhabitants of the Nikobar islands are sometimes represented by those who have visited them, as speaking a language which is radically Barma, while, by others, it is reckoned Malayu. If Fontana's short vocabulary (Asiatick Researches, Vol. III.) can be depended on, the Nikobar language seems to have very little connection with either the one or the other; as it does not appear to contain above two or three words which can with certainty be referred to either of them.

The Barma language has been little cultivated by Europeans, excepting

the Catholic Missionaries. The "Alphabetum Barmanum," digested by CARPANIUS, was published at Rome in 1776. CARPANIUS mentions, in his preliminary dissertation, that, at that period, a grammar and vocabulary of the Barma language had been prepared by P. Joh. MARIA PERсото, Bishop of Méssola, which seems never to have been published. In the preface to the same work, AMADUTIUS mentions, that the gospel of St. Mathew, and the epistles of St. Paul, had been rendered into the Barma language, together with the "Evangelia dierum omnium Dominicalium," " Epistol Dogmatica, et Dialogus inter Missionarium et Talapoinum." T. PAULINUS, also mentions among the Borgian MSS. a dialogue between a savage Khien and an Ex-Talapoin, written in the Italian language by D. CAJETANUS MANTEGATIUS, the object of which is to expose the doctrine of the Talapoins, as contained in the books of the Barmas. Khien seems to be the name of the rude tribe termed Khéng by Moslem writers, and Kiayn by Dr. Buchanan; and the work itself, the translation of a composition circulated among the converted Barmas by the catholic missionaries. The Talapoins seem, however, to have retaliated on the missionaries; and Dr. Fr. Buchanan has printed Vincentius Sangermano's translation of "A view of the Religion of GODAMA," composed by ATULI ZARADO, for the express purpose of converting the Christians, in which the English, Dutch, Armenians, and other nations are exhorted to adore Godama, the true God; to adore, also, his law and his priests, to be solicitous in the giving of alms and in the observance of Sila, and in performing Bavana.

IX. Môn.—The Môn language is still used by the original inhabitants of Pegu, who denominate themselves Môn, though by the Barmas they are termed Taleing, and, by the Siamese, Ming-môn. This language has

never been cultivated by Europeans, and the only specimen of it, known to me, is that printed by Dr. FR. BUCHANAN, (Asiatic Researches, Vol. V.) It seems to be quite original, and is said by the Barmas and Siamese to have no affinity with either of their languages. I have met no learned man of the race, nor have had any opportunity of cultivating the language, but I have been informed by a Talapoin that they possess many ancient histories in this language; which is not impossible, as they seem to have attained civilization, at a more early period than the Barmas; and, though "now reduced, to have been formerly a great and potent nation. In the early Portugueze histories they are denominated the Pandálús of Món; and they are supposed to have founded the ancient Kalaminham empire, cat a very early period. The name Kalaminham, mentioned by the Portugueze, is probably connected with the Siamese name of the nation, Mingmôn. The Môn alphabet, if I can depend on the specimens of the chagracter shown me by a Barman of some learning, is only a slight variety -of the Barma-Báli, with which it corresponds, in the power and arrangement, as well as the form of the characters. I have, however, had little opportunity of investigating this subject; and, expecting to have visited Pegu, did not avail myself of that opportunity to the fullest extent. The examination of the Môn character and language, has no peculiar difficulty, and may be easily accomplished by the first literary inquirer who may visit Pegu; and I still indulge the hope that my future inquiries may be attended with success in investigating, their relations,

X. Thay.—The *Thay* language is that which is used by the *Siamese*, who, in their own tongue, assume this name as their national appellation. By the *Barmas*, they are denominated *Syan*, from whence the *Portugueze* seem to have borrowed their *Siam* and *Siaom*, from whom

the other nations of Europe have adopted the term. LA LOUBERE, who visited Siam in 1687-8, as Envoy Extraordinary from the French monarch, has given incomparably the most accurate account, that has ever been exhibited, of this nation, formerly reckoned the most polished of eastern India. He divides them into two races, the Tai and the Tai Yai. The latter nation, he adds, are reckoned savages, though the most ancient. Their name signifies literally the great Tai, and in order to distinguish themselves from this nation, the ruling race, in modern Siam, assume the name of Tái-noë, the little Tai. Dr. Fr. Buchanan, however, on the authority of the information he received in the Barma dominions, divides the Siamese race into many states; and gives a specimen of the vocables of three dialects. This brief vocabulary, with LA LOUBERE's observations on the Siamese language, and "The maxims of the Talapoins," translated out of Siamese by the catholic missionaries, which he has published in his "Historical Relation of the Kingdom of Siam," constitute all that has been published, respecting the language or literature of this nation, in any Euro-The result of my own inquiries certainly coincides more directly with LA Loubere's information, than with that received, by All the intelligent Siamese, whom I have met, Dr. Fr. Buchanan. and among these, there were Talapoins, both of the Tai and the Taiyai race, agree in asserting, that the Siamese nation, properly so called, consists of two tribes, the T'hay and the T'háy-j'hay, for so the names are properly written. Of these the most ancient are the T'hayj'hay, formerly famous for their learning, and the power of their empire. It is added, that many monuments of this ancient race exist in the kingdom of Siam; and I was informed, in particular, that in the vicinity of Ligór, about five days journey from Trang, there are various ancient inscriptions, on stone, among the ruins of a very ancient temple, which are attributed to the T'hay-j'hay, but which no person among the modern T'hay is able to decypher. The T'hay language, or Siamese, as it is written by these two races, does not differ essentially; but the spoken dialect among the T'hay j'hay, is much more strongly accented, than among the T'hay proper, or the present ruling race of Siam. The T'hay j'hay inhabit the country between the Me-nam and the Me-kon, or river of Cambodia; but the T'hay, for the most part, inhabit on the west of the Me-nam, or between that river and the frontiers of the Tinnaw, Môn, and Barma nations. As to the Tai-loong, of whose vocabulary Dr. Buchanan has given a specimen, all the Siamese that I have met, though they admit that a district is denominated by this appellation, unanimously deny, that there is either a race of men, or a dialect of the language, which bears this name. The words themselves, which Dr. FR. BUCHANAN adduces, as specimens either of the Tai loong or the Tai-yay, are pure T'hay, whenever they are not auricular corruptions of pronunciation, or words of different meaning, introduced, apparently, by the interpreter's misapprehension of the sense required to be expressed. Having myself been frequently exposed to similar misapprehensions, and knowing, from experience, the difficulty of avoiding it, especially in languages, in which not only the signification varies, with such delicate shades of pronunciation, as are almost undistinguishable to an European ear, but the train of ideas themselves, is regulated by such a subtile, and as it were hieoroglyphical set of principles, I am far from insinuating any carelessness in Dr. Fr. Buchanan, whose comparative vocabulary is the first attempt to

classify these languages; but I am attempting to account for the mistakes, into which he seems to have been inevitably led, by the misapprehension of his interpreters. Thus, moo signifies the hand, in T'hay, and paw-moo, which he exhibits as the Tai-loong variation, is only Fa-mú, the palm of the hand, in the proper language: Kén, which he writes kayn, signifies the arm, in T'hay or Siamese proper, and in the same language. komooee, which he gives as the Tai-yay synonime, signifies the lower part of the arm, from the elbow to the wrist, and moo, the Tailoung synonime, signifies the hand; Tin, signifies the leg, in Siamese; but naung, which he gives as the Tai-nay, signifies the skin; and koteen, the Tai-yay synonime. the joints of the leg; in the same manner langteen, which he gives as the Tai-nay, or common Siamese, for foot, signifies literally the upper part of the foot; and Swateen, the Tai-nay synonime, appears to be a mispronunciation of Fatin, the under part of the foot. Satt signifies a beast, or animal, and nook, the Tai-yay synonime, is only a mispronunciation of nók, a bird, as are noup and naut, the Tai-nay and Tai yay words, which are given to signify a bird; Pawk signifies the mouth, but tsop, given as the Taiyay synonime, is a mispronunciation of tsot, to drink; San signifies short, but lot, the Tai-yay synonime, signifies child, and unlot, the Tailoong synonime, one child; yoon signifies to stand, but loot-sook, the Tai-yay synonime mispronounced, signifies to rise up; and Peinung, the Tai-loong synonime, go sit; seeza, the head, is not Siamese, but Bali, and the Tay-yay synonime ho, and the Tai-loong hoo, are only mispronunciations of the proper T'hay term huă. It may be proper also to observe here, that Dr. FR. BUCHANAN has printed Tay-nay instead of the Tai-noë of LA Lou-EERE, which signifies little Siamese; whereas Tay-nay cannot possibly

signify little Siamese, but only chief Siamese; the true meaning of nay, being chief or head. It is a term of similar import with nayen, nayer and nayenmar, used in Malabar, as the appellation of the military cast, or naya-ka, in Sanscrit.

The T'hay or Siamese language appears to be in a great measure original; and is more purely monosyllabic, and more powerfully accented, than any of the Indo-Chinese languages, already mentioned. It certainly is connected, in some degree, with some of the Chinese dialects; especially the Mandarin or Court language, with which its numerals, as well as some other terms, coincide, but these are not very numerous. It borrows words freely from the Bali, but contracts and disguises more, the terms which it adopts, than either the Ruk'héng or the Barma. In its finely modulated intonations of sound, in its expression of the rank of the speaker, by the simple pronouns, which he uses, in the copiousness of the language of civility, and the mode of expressing esteem and adulation, this language resembles the Chinese dialects, with which also, it coincides more nearly in construction than either Barma or Rukhéng. Its construction is simple and inartificial, depending almost solely on the principle of juxta-position. Relative pronouns are not in the language; the nominative regularly precedes the verb, and the verb precedes the case which it governs. When two substantives come together, the last of them is for the most part supposed to be in the genitive. idiom is consonant to the Malayu, though not to the Barma or Ruk'héng, in which, as in English, the first substantive has a possessive signification. Thus, the phrase, "a man's head," is expressed in Barma and Ruk'héng, by lú-k'haung, which is literally man-head; but, in Siamese,

it it is kua-khon, and in Malayu, kapala orang, both of which are literally head-man. A similar difference occurs in the position of the accusative with an active verb, which case, in Barma and Malayu, generally precedes the verb, as tummaing chá, literally rice eat; but in Siamese follows it, as kén káw, literally eat rice, which corresponds to the Malayu, makan-nasi. The adjective generally follows the substantive, and the adverb the word which it modifies, whether adjective or verb. Whenever the name of an animal, and in general, when that of a species or class, is mentioned, the generic, or more general name of the genus to which it belongs, is repeated with it, as often happens in the other monosyllabic languages, as well as in Malayu. In the position of the adverbial particle, the Malayu, often differs from the Siamese; as Mana pargi, literally where go, but, in Siamese, pai hnéi, go where. The Siamese composition is also, like that of the Barma, a species of measured prose, regulated solely by the accent, and the parallelism of the members of the sentence; but, in the recitative, the Siamese approaches more nearly to the Chinese mode of recitation, and becomes a kind of chaunt, which different Brahméns have assured me is very similar to the mode of chaunting the Samaveda.

The T'hay coincides occasionally, even in simple terms; both with the Barma and Malayu; but these terms bear so small a proportion to the mass of the language, that they seem rather the effect of accident or mixture, than of original connection. The following are some of these coincidences which present themselves spontaneously.

	T'hay	Barma		T'hay	Malayu
river	klong,	kyóng or .	I,	ku,	aku, and
		krong,			ku,
elephant,	chang,	ch'heng,	this,	ni,	ini,
saw,	lŭei,	lúa,	that,	nunn,	inún,
finger,	nyew,	nyo,	lock,	kachê,	kunchi,
to,	ka,	ga,	dagger,	krít,	krís,
self,	éng,	ēng,	open,	bùk,	búka,
			to,	ka,	ka,
		41. 31	come,	ma,	mari.

The T'hay or Siamese alphabet, differs considerably in the power of its characters from the Bali; though it not only has a general resemblance to it, in point of form, but also in the arrangement of the character. The vowels, which are twenty in number, are not represented by separate characters, but by the character corresponding to the short *ăkar*, variously accented; excepting the vocalic ru and lu, which are only variations of the r and l consonants. The consonants are thirty-seven in number, and are not arranged by the series of five, like the Deva-na-gari and Ball, but the first series ka, consists of seven letters; the second series, cha, of six; the third series, ta or da, of six; the fourth series, ba or pa, of eight; the fifth series, ja, of four; and the last series, sa, of six, including the vocalic *akar*, though two of them are not in common use. Each of these letters is varied by sixteen simple accentuations, and by thirty six complex ones. The letters ka, nga, ta or da, na, ma, ba or pa, are also final consonants. Hence it is easy to perceive the near approximation of the Siamese to the delicacy of the Chinese accentuation; while in other respects, the alphabet is considerably more perfect, than in the Mandarin or Court language of the Chinese, which has neither the same variety of consonants, nor admits so many, in the close of a syllable. The Siamese pronunciation, even of consonants, corresponds very imperfectly to the European mode: r and l are generally pronounced n, in the close of a
syllable; h is often prefixed to a consonant, but from the total suspension
of voice, in pronouncing syllables which terminate in a consonant, no
aspiration can be pronounced after them; ma, and ba, tya, and chya, are
often difficult to be distinguished in pronunciation, as are ya, and ja, $ky\acute{e}$ and $chy\acute{e}$ with other combinations. From this circumstance, many combinations of letters are pronounced in a manner somewhat different from
that in which they are written.

The first European who attempted the study of Siamese literature, was the learned Gervaise, but his lucubrations have never been published. The learned and indefatigable Hyde procured from the Siamese ambassador at London, an imperfect copy of the Siamese alphabet, which has been published by Greg. Sharpe, in the "Syntagma Dissertationum," 1767. It is inferior to La Loubere's alphabet in accuracy, though it contains a greater number of compound characters. La Loubere's alphabet contains three forms of the sa, corresponding to the Nagari; but the sha and sh'ha being disused in common pronunciation, are commonly omitted both in the alphabet and in modern MSS.

The Siamese or Thay language contains a great variety of compositions of every species. Their poems and songs are very numerous, as are their Cheritras, or historical and mythological fables. Many of the Siamese princes have been celebrated for their poetical powers, and several of their historical and moral compositions, are still preserved. In all their compositions, they either affect a plain, simple narrative, or an

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unconnected and abrupt style of short, pithy sentences, of much meaning. Their books of medicine are reckoned of considerable antiquity. Both in science and poetry, those who affect learning and elegance of composition, sprinkle their style copiously with Bali. The laws of Siam are celebrated all over the east, and LA LOUBERE has mentioned three works of superior reputation, the Pra-Tam-non, the Pra-Tam-Ra, and the Pra-Raja-Kam-manot. Of these, the first is a collection of the institutions of the ancient kings of Siam; the second is the constitutional code of the kingdom, and contains the names, functions, and prerogatives of all the officers; the third, which is about 150 years old, contains additional regulations. Of these, the first is the most celebrated and the most deserving the attention of Europeans.

The Siamese histories of the T'hay dynasty, detail with much minuteness, and great exaggeration, the events which have occurred in Siam, and the adjacent states and countries, during the last 1000 years. It also details the events of 400 years, previous to that period, with less precision, from the building of the city Maha Nakhón. The records, however, of the T'hay J'hay dynasty are supposed still to exist; and, perhaps, it may yet be possible to glean a few grains of pure historic gold from the sands which glitter in the long vallies of the Mé-nam and Mé-kon.

The Cheritrás, or romantic fictions of the Siamese, are very numerous, and the personages introduced, with the exception of RAMA and the characters of the Ramayan, have seldom much similarity to those of the Brahméns. The following are some of the most popular among the

T'háy, several of which contain the same stories and incidents as those which are current among the Rukhéng, Barma, and Malayu nations.

1.	Râmá-kién,

2. Rádin,

3. Sum-mut-ta-kó-dóm,

4. Wét-jäsun dón,

5. Worawong,

6. Un-narút,

7. Mahó-sot,

8. Méläy,

9. Chátri,

10. Chalawan,

11. P'húm-hóm,

12. Pra-thóm,

14. Poklha-wad-di.

15. Téng-ón,

16. Linthong,

17. Nok-k'hum,

18. P'ha-non-son-pajá,

19. Mak-kali-p'hon,

20. Súm-p'han-sit,

21. Sŭan-na-hong,

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22. Prang-t'hong,

23. Nang-síp-song,

24. Ramá,

25. Chumpá-t'hong,

26. Lúk-sŭa-ko,

27. P'him-swan,

28. Păja-p'hali,

29. T'hàw-krúng-són;

30. Khun-p'hen,

31. Trei-wong,

32. Chin-narat,

33. P'howit'hàt,

34. Su-t'hin,

35. Hői-sang,

36. Sang-sin-chay,

37. Woranút,

38. Chitra-kán,

39. Nang-ut'hay,

40. Mahá-Chinók,

41. Mlék-t'hòng.

In the general characteristics of style and manner, these Cheritras resemble those of the Rukhéng, Barma, and Malayu tribes, and exhibit the peculiar manners of the Indo-Chinese nations, as well as the peculiar features of their mythology. The Rama-kien seems to be a Siamese version of the Ramayan, and relates the adventures of PRA RAM, and his

brother PRA-LA'K or LAKSHMANA, and their wars with Totsa-kan or Dusha-Kantha, (which is one of the names of Ravana,) who carried off Nang Se'da or Si'ta. This narrative corresponds as far as I have been able to learn, with the Sanscrit poem, and almost all its incidents have been converted into Natakas for representation by the Siamese, in the same manner as the Barmas have employed the incidents of the Yamaméng or Barma-Ramayan. Rádín is the Siamese translation of a Javanese story. Sum-mut-ta-ko-dom is the history of Somonakodom, abridged from the Bali. The IVet-jä-sun-dón is the history of a Rajah who becomes an ascetic of the forest, being struck with a fit of devotion at the sight of a withered mango-tree, as he was walking in his garden. Worawong is the history of an unfortunate Rajah, who fell in love with a lady, and was slain by an enchanted spear which guarded her, one night as he was escalading the window of his mistress. This is also a subject of dramatic representation. Mahó-sót contains the wars of Maha-sot with Chor-NI, and is the same as the Barma Maho-Sut'ha. Un-narat, narrates the story of ANI'RUD'HA, the grand-son of KRISHNA. Malay relates the benefits of MALAY, the being whose office is to relieve the torments of Naraka. Chalăwán contains the history of a destructive alligator, who falls in love with a princess, whom he carries off to his recess in the ocean, and the account of her rescue. P'húm-hóm is the history of another princess of whom an elephant was enamoured, and her rescue. Prat'hom is a mythological account of the origin of the universe, according to the principles of the Budd'hist sect., Nok-khúm is the mythological account of the celebrated Hamsa. Pokha-wad-di is the history of Bhagavati. P'ha-nónsón-paja, contains the instructions of the sagacious ape P'ha-non. The Mak-kali-p'hon, the adventures of the son of a chief, who possessed a

wonderful cow, resembling the Sanscrit Kamad'henu. Súm-phan-sit, a book of moral instructions. Prang-t'hong relates the adventures of the persons who went to the land of the Rakshasas in search of the fruit Prang thong, for which a certain princess had longed when pregnant, the obtaining of the fruit on condition that the child of which the princess was pregnant should be presented to the Rakshasa, the carrying off of the child by the Rakshasa, and her return to her parents when grown up. The Lúksua-kó relates the friendship between the tyger and the bull, and their being afterwards metamorphosed into men by a certain Rishi. Paja-p'hali relates the adventures of VALI, the brother of SUGRIVA'. The Hoi Sang relates the adventures of the prince who was born in a chank shell, and remained in it till he arrived at maturity. The Sang-sin-chay is the account of a hero who was born with a chank and an arrow in his hand, with which, and mounted on a lion, he accomplished many adventures among the Rakshasas and Girgásis, Yakshas or Yák, as they are termed by the The Woranút relates the adventures of the twin brothers WORANU'T and WORANE'T. Nang-uthay relates the adventures of a Naga princess, who was carried off by a Rajah. Some of these fictions exhibit a wild and singular style of fabling, with which we are little acquainted, but the greater part are obviously derived from the Sanscrit, through the Bali.

The Thay exhibits considerable variety of measures, in composition, and frequently introduces several of them in the same work, in the same manner as is frequently done in Brij'h, Punjabi, and Sik'h compositions. The most frequent measure, however, among the Thay, as among the Ruk'héng and Barma, seems to be that denominated rap, which consists of

four long syllables, but admits occasionally of one or more intercalary short ones: the Já-ni which consists of five syllables, the Chô-bang of six, the Pat'hamang of seven, the Jésuntá of eight, are also frequently employed.

The following specimen of T'hay, is taken from the beginning of the Mahá Chinók, a work in which the greater part of these are introduced.

DESCRIPTION OF MAIT'HILA.

Jang mi muung nung Jay kwang trahung Chu Mit t'hin lá Tháw p'hu suwoi rât Krop krong para Song nam maha Chinok p'homi Som det p'homi Krong se narát Pin chá nan ma Bo mi an arái Ké rat prachá T'haw krong para Pin cháw p'hen din K'haw mâk plá-t'hok Bomi p'hai rók Bibíĭn p'ho min Pinsúk kă priăm pri Múung Pra Narin T'haw krong p'hen din Súkă sém pră chá

Lok'ha-ma k'hài Wanit t'hang lài Chai rŭa pai ma Bo mi satru Bibíin práchá Prat'het naná Jom ma thuk muung Chin, Cham, Pram, Law Ming-môn, Tin-náw Map mai nong núung P'hărang phang-ka Ma kha t'húk múŭng Kkék môn nong núung Ma múŭng ka kai Kúla P'hrang-sét Chín Cham Pram-T'het Chong sakk Naláy Jipún Chinhó Aw sin ma k'hái Ni nún lúă lay

There was a certain country, powerful and of great extent, termed Mithiala (Maithila). In this country a certain Rajah exercised the sovereign authority, named Maha Chinok, (Janaka), overshadowing his people like the spreading banian tree. For a long series of years, he ruled this country, while none was able to injure it, or subject it to foreign authority. Rice was abundant, and of a cheap price: no disease prevailed, and no discontent against the sovereign, and the inhabitants

enjoyed every pleasure, as in the region of Pra-Narayen. The sovereign of the country diffused joy over the face of the land, among the natives, while merchants resorted thither in fleets of ships, constantly going and coming; and as there was no disturbance in the land, the inhabitants of every country frequented it; the Chin, (Chinese) the Chám, (the Chinese Tartars) the Pram, (Brahméns) the Ming-Môn, (Môns of Pegu) the Tinnaw, (Barmas of Tenaserim) all of them in innumerable multitudes: also the Franks of Europe came thither to traffic; the Khék, (Malays) the Kúla, (Chulias) the Phrangset, (French) the Pram-t'hét, (Kelings or Hindús of Kalinga) the Chong-sakk and Na-Lay, (Caffree tribes, with stained skins and tattoed faces), the Jipun, (Japanese) and the Chinho, (Tonkinese) resorted thither with goods, to buy and sell, constantly in great multitudes."

The Maha Chinok of the Siamese, seems to be a popular account of Raja Janaka, of Mait'hila, derived from the Ramayan; but it is evident, if the text can be considered as correct, that the work has been either interpolated or modernized, from the mention of the Franks and the French.

The following specimens of Rukheng and Barma, will indicate the similarity of style and measure which prevails in all the monosyllabic languages.

The specimen of the Ruk'héng is taken from the Nga-chaing-braing:

THE BIRTH OF GAUTAMA.

O-lé lé sangkhyé hna
Kaing b'ha ta saing
Two'k kyíng tsúng bowng
Pri bri syowng-hma
Párá tzú gó
Lo rui towng thi
Alúng sú mré'p
Syang Thork-d'hat ga
Né hmát pro ra
Dowk thi da hnei'ch

O tzeng lé bri sô
Dewa nát-tzei'ch
Ahnei'ch mroung krá
Tzaing bri chwa hma
Sei'ch-tza lé ba
Tará tzu si
Pri kha-ni-wé
Pri gri sa hla
Ka pila huei'ch
Khrei'ch pha Thowk tó

Khyaing sa sukha Tzaing lé sa dé. Maya waing t'hé Ainri thaing d'hé Tsŭwé lé ti O thaing dé tsuwé bri Mré gri kreit krak Aup t'hak akowng Lat lat towng é O thaing dé tsuwé t'ha Tsé la waing hneik Paik towng bri tho Piang é nan hmon Ahlueng tu pró Angarang to hneik Mi tso maya Uyein sa go Lé la tan di O lé lát bri so

Médó boûng hi Siri maha U yéng t'hé doang Ko wat krang rué Pra jang ron mra Ni ma hla ni Gotami hna Mă pri rat léăt Lé krang shéat ruwé Prang thak hnan moang Ahlueng tu pro Angarang to hneik Mi tso maya Tháing kha ngewéh khak Káing hléak lék tsuwě Amré rat né Thowng lu chwa go Phwa hléang lé i.

When one hundred thousand revolutions of the world were completed, each occupying four Sankhyas, then the devout worshipper obtained the object of earnest desire; and the sublime THIK D'HAT. (Sidd'hart'ha) who is acquainted with the secrets of futurity, obtained supreme felicity, tranquillity devoid of care, and self absorption. After the pure Deva Nat'ha had passed numerous ages in the possession of supreme felicity, meditating on the four laws of truth, when the period of the divine favour was nearly completed; in the excellent and populous region of Kapila, Suk-to (Sudd'hó-DANA) became his beloved father, and SRI MAHA MAYA, his venerable mother, became pregnant of a perfect conception. When this conception took place, the strong earth was agitated upwards and downwards, trembling and shaking. After ten months pregnancy, supporting her swelling womb with her hand, his mother MAYA was walking for recreation in a deep forest of Angarang trees, diffusing around an exquisite odour. Walking up and down in a pleasant garden, reciting the divine names on her rosary, and radiating in brilliant beauty, and accompanied by two younger sisters of the same complexion, unable any longer to support the burden of Gotama, (Gautama) she leaned on the shoulders of her two younger sisters. Within a deep forest, in a grove of Angarang trees, which diffused around an exquisite odour; his mother MAYA, firmly grasping the branches with her hands, and standing erect on her feet, brought forth the deity GOTAMA.

THEIK-DHAT OF THÍK-DHAT, is the Barma mode of pronouncing Sid'hata, as it is written, which is the Ball corruption of Sidd-har-t'ha.

According to this analogy, Budd'ha is pronounced Bu'gda, and Sudd'ho, the contraction of Sùdd'hodana, Suk-to, and sometimes Sug-do.

The following specimen of Barma verse is taken from the Chatu-Damasara, as it is termed in Pali, which is denominated the Ko-Khán in Barma.

DESCRIPTION OF VARANASI.

Baranasi Pyi gyi pyi hu Kyó-níy lú-bó We-niy kosi Năgo k'haing-gaing Hwún hwún di Baranasi Chông ji pyo wa T'ho pyi ma hneik Dana-ma-mé Chawng lé sadéng Meng i tang khúĭn Chúĭn gyé han lī Khyiuk suin pyo byo Hna myo mé hlyéang Hmya hné chéng ĕwé Wan dûéng p'hyong tan, Makouk yúĭn di Ta khúĭn ha ga Hnei'ch kwa maswé Myew chwé khyé'ch so Húléng kacha Hloup shya maneyng Kyan k'heng myé chông Chéng yé hu-sa Yé tu khyan p'hyeng

Ti di sóng ewé Hné lóng makyan Kyéng dan mwé nyek Myék sék niba Peng ga néng t'hek Hní'ch chek mushih Khan khi sí nyín P'hyeang bé pyo t'hu Lú ahwon hné Machan kyéang hmu Leik hléo pyew sa Ché khu hneik chán Raja t'han dŭéng Ta éng makhyo Kyé ju do gyowng Sépo pyéng gyĕwin Myet lé thuĭn só Ku-san hlé deík Pyiuk la so kha Ko gwé ya hlien Hman chua chéng chei'ch Phyeit pé so la Néng ngan sa do Myo ba ché yú Mito ketu

Hmat takhu phyičng

Tổng lễ khyếng hma
Pyowk keng chế khyếng
Bowng mi kếng ewé
Mwoi shéang lan-owng
Sín myan chông si
Swé tawng nan pǔếng
Cho yan hlueng ga
Meik myiang ko yo
Sívé khyi ko sa

Esukari Kyo hlueng nyi hliép B'hông cheit ta hmu Khát sin lu-do Up'hyu u nék Sowng teik tweik si Hwan teik pyi byi Hlyéan hlyéan di

BARANASI (Benares) was a beautiful and extensive region, inhabited by a race superior to every other, whether far or near, living fortunate and happy. Baranasi was, in every respect, an admirable country, possessing every thing desirable; for in that kingdom, prevailed the practice of charitable donation, and the performance of ascetic duties. So generous was the heart of the Rajah, that he gave, in charitable donations, the whole of his revenue. Devoid of every selfish desire, his mind was onefold, like the point of an arrow. Free from evil inclination, onefold and not double in his speech. Affectionate to all his relations, and beloved of them, remaining firm as a massy roof-beam, no one could prevent or shake his purpose; never deviating from veracity, undivided in heart, excellent in his whole conduct, and his heart devoid of angry passion. Under his sway existed no violence, restraining the desire of his own eyes. Such was his universal character.

Performing no wicked action, and rendering all his people happy, he neglected none of the ten commandments in the practice of general benevolence. Like a bank of sand, which rises up into an island far at sea, and when the passing ships are wrecked, affording a sure and safe refuge to the mariner. Thus it was that he aided his subjects, who were sinking overwhelmed in misfortune; and thus those who were shivering under the chilling cold, (of distress) were revived by approaching the genial flame of authority. Like the motion of a serpent, cautious in his conduct. His palace was splendid as a mountain of gold: in his presence no enemy durst present himself. Sivakara Kasa Mitra Ke'tu, with his mind fixed on one object, Yesukari far celebrated; such was his regal state, that the whole human race, whether white or black, in ten thousand regions, lived in joy and happiness under his sway.

It is difficult to determine, from the Barma text, the true name of this sovereign of Benares; but several names, in some degree similar, as

MITREYA and KETUMAT, occur in a Pauranic list of the Rajas of Benares, descended from Divodasa, which was pointed out to me by Mr. Colebrooke, of whose notices I have frequently had occasion to avail myself.

XI. K'hôhme'n.—The K'hôhmen language is used by a nation of that name, who reside on the Mé-kón, or river of Kam-bú-chất or Camboja. It has never been cultivated by Europeans, and I have had no opportunity of examining it. The Siamese, from whom I received my information. assured me that it was entirely different from either the T'hay or the Júan, or language of Cochin China. The K'hôhmén are reckoned an ancient and learned people; and were formerly subdued by the T'hay-j'hay. or ancient Siamese race. The modern T'hay, or Siamese, still denominate the Bali character, Nangsu Khôm, or the K'hôhmén letter, from this nation. They are not, however, supposed to have existed as a polished nation so early as the Lâw, but are believed to derive their origin from the warlike race of mountaineers named Khb, the Guess of the early Portugueze historians, who are still represented as practising their ancient customs, of eating human flesh, and painting and tattooing their bodies, Dr. BARROS, however, seems to represent the language of the Khohmén as different from that of Camboja, though the Siamese do not distinguish them. "There are two kingdoms," says he, "adjacent to each other, and both of them maritime, which have each a peculiar language; the first is termed Como, and the second Camboja." (Decad. iii. lib. 2. c. 5.)

XII. LAW.—The Lâw language is used by the inland nation of that name, who are generally termed, after the Portugueze writers, Lâo, and

in the plural, Lâos, from their consisting of different races. Their language, DE BARROS observes, is peculiar, and the Siamese assert that it is different from the T'hay. It has never been cultivated by Europeans, very few of whom, besides Alexander De Rhodes, have ever visited the country. According to KEMPFER, (History of Japan, p. 26,) the Lâw nation do not differ much from the Siamese, either in language or writing, except that they are unable to pronounce the letters l and r: and this opinion I am much inclined to adopt, though I have had no favourable opportunity of investigating the subject. If, however, I may be allowed to judge from the specimens of the Law language, which I have been able to procure from Siamese and Barmas, it appears to bear the same relation to the T'hay or Siamese, that the Rúk'héng does to the Barma. With the T'hay-j'hay it accords more fully than with the T'hay proper; and, in adopting Pali terms, it adheres more accurately to the Pali orthography than either of them. The following short list of words and phrases will convey some idea of the difference which subsists between the Thay and the Lâw. As the Thay-j'hay approaches the Lâw more nearly than, the T'hay, when that dialect uses peculiar terms, I have preferred adducing them, for the sake of comparison. Where the Law and the T'hay agree in the radical, an apparent diversity is often produced by the conversion of the l and r into h or d.

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Lâw.

T'hay.

not know. bo-hu. mai ru, Do you see? cháw han ka. nai hén rú, many, mák. meng, mésămút. thălé, sea. wave. fông, klún. không, river, klóng, number. ân, rap, gold, khăm, thông-kham, thông, lead. tông, tăkúa. do, peng, jia, t'ham, jia, book. pap, sabút. matchlock, sénat. pùn, far off, kăi, klái, handsome, lau, ngám, weary, ít, nùëv. hated, chă. kléít, sing, so, khap, grieve. . hái. rong, give, hún, hŭi, approach, hôt. thung, market, kât, tălát. shut, tút, pít. flesh, chín, nŭa, blood. hùit, lùit, fight, hop, rop, craft, khilái. lúang, stand. hŭn, jùn, kat'hip, lamp. tă-kiang, how is it done? peng jang húdé, t'ham jang arai, táw dai, how many? taw rái, p'ha chan, moon, pra-chan, mé jing, woman. pu-jing, man, pho-chay, phu-chay, country, wiyung, muang, house, hŭin, rùin, who, phai, krai, or kai, what, basandé, arai,

	Lâw.	T'hay.
go there,	pai-pún,	pai-nún,
come here,	mà-phé,	ma-ni,
fort,	tapp,	k'hái,
elder brother,	ay,	pi-pach-ay,
elder sister,	ùei,	pi-pu-jing,
mother,	ïm é,	mê,
I,	ku,	k'hà,
I (honorific)	kha,	di-chan,
we,	hôw,	râu.

It is from this nation that both Siamese and Barmas allege that they derive their religion, laws, and institutions. It is in the country of Láw that all the celebrated founders of the religion of Budd'ha are represented to have left their most remarkable vestiges. Ceylon boasts the sacred traces of the left foot of Budd'ha on the top of the mountain Amála-Sri-padi, or Adam's Peak. Siam exhibits the traces of the right foot, on the top of the golden mountain Swa-na-bapato. Other traces of the sacred steps are sparingly scattered over Pegu, Ava, and Arakan; but it is among the Lâos, that all the vestiges of the founders of this religion seem to be concentered, and whither devotees repair to worship at the traces of the sacred steps of Pra-Ku-ku-sôn, Pra-Kôn-nă-kôn, Pra-Put-t'ha-Kat-sop and Pra-Sa-mút-ta-ko-dom. These Siamese names of the four Budd'has seem to correspond to the Barma KAUKASAN, GONAGOM, KASYAPA, and GOTAMA, the Singhala, KAKUSA'NDA, KONAGAM, KASYAPA, and GAUTAMA. There can be no doubt, however, from the order of the names, but that they are the four last Budd'has in the list given by He'machandra ACHA'RYA in the Abhid'hana Chintámeni, under the following Sanscrit appellations, from which all these Siamese, Barma, and Sing'hala names,

seem to be only Bali corruptions. The Sanscrit names are Krukruch'hunda, Kanchana, Kásyapa, and Sákyasinha. The language of Lâw is represented as abounding in books, especially translations from the Bali; and if the antiquity of the nation can be depended on, they must be extremely interesting, from the situation of the country between China and the other Indo-Chinese nations. The Lâw nation consists, like the Siamese, of two different races of people, denominated in Siamese, Chông-mái and Lan-chang, which are said by Kæmpfer, to be the names of their chief cities. The first of these are termed, by the Barmas, Yún, and the second, Lain-sain. De Barros adds a third tribe, which he denominates Chan-cray. In their general appearance the Lâw resemble the Môn.

XIII. Anam.—The Anam language is that of Cochin-China and Tonkin. It is represented by the catholic missionaries to be likewise generally used in Champa and Kau-bang; but their assertions must be taken with some limitation when they add, Law, Cambója, and Siam. The Anam language, as well as the nation, is often denominated the Júan, by the Malays and Siamese. It has always been more cultivated by the catholic missionaries, than any other of the Indo-Chinese languages, though these fathers may, with some degree of propriety, affect the title of "multiplicis idiomatis propagatores." So early as 1651, the Propaganda Society published at Rome, the "Dictionarium Annamiticum Lusitanum et Latinum," compiled by the jesuit Alexander de Rhodes, after twelve years residence in Cochin-China and Tonkin, where he had studied under P. Francisco de Pina, the first who acquired skill and facility in that language. In composing his dictionary, he had also the advantage of employing the materials collected by P. Gaspar de Amaral and P. Antonio Barbosa, the first of

whom had made some progress in preparing an Anam and Portugueze dictionary, and the second in compiling one in Portugueze and Anam. This dictionary is printed wholly in the Latin character, as the author considered the Anam character as too difficult to be useful. It is accompanied by a short grammatical sketch of the Anam. language, entitled "Linguæ Annamiticæ seu Tunchinénsis brevis Declaratio." Though I have never met with a learned Cochin-Chinese, I have seen several persons who could speak the vulgar language by rote, and have paid sufficient attention to it to perceive, that the dictionary of DE RHODES is a work of very great merit, though certainly susceptible both of additions and emendations. A new edition of it, would be a work of great utility, if our relations with Cochin-China should ever become more intimate or important: a circumstance by no means unlikely, from the formidable aspect which that kingdom has lately assumed among the more easterly nations. The principal defect of the work is, its representing, very imperfectly, the Anam pronunciation; a defect unfortunately very difficult to be remedied, as the Anam language contains many sounds which correspond very little to those of any European language, and respecting which a grammarian might be tempted to say, with the devout missionary Didacus Collado, when treating of the pronunciation of a Japanese letter, "quando in aliquo vocabulo fuerit, (quod est valde frequens) orare debet discipulus, Deum, ut ei venas pronuntiationis aperiat."—(Prolog. in arte Grammat. Japonic. ling. p. 4.) DE RHODES also published at Rome, in 1652, a catechism, for the use of his Anam converts, in Anam and Latin.

From the vicinity of the Chinese to the Anam nation, and the intimate connection that has at different periods subsisted between their countries,

the Chinese character, as well as literature, has been introduced into both Tonkin and Cochiu-China. Chinese literature is greatly affected by all who pretend to distinction in learning, in these countries; and in the language of Anam, the Chinese characters are denominated Chiav. this, another species of character is in general use, and commonly employed in matters of business and private affairs, which is constructed on a principle entirely different; and though its letters are numerous, they bear no proportion to the Chinese signs, and, according to DE RHODES, they are unintelligible to the Chinese and those who are unacquainted' with the Anam language. These characters, in the Anam language, are termed Nom. What relation they bear to the Bali characters I have not been able to determine accurately, though I suspect they will be found to be connected with that, or the T'hay alphabet. It is perfectly certain, however, that they have no connection with the proper Chinese character. I have been informed, by an intelligent Chiuese, who had resided some time in both Siam and Cochin-China, that the proper Anam character greatly resembles that of the Siamese. The missionary Borri says, that the Cochin-Chinese, in harangues, letters, memorials, petitions, "and such things as do not belong to printed books, for these, of necessity, must be in Chinese characters," generally employ about three thousand characters, which they find sufficient to express their meaning. If the compound characters, and contractions of the Siamese, be included in their alphabet, they would nearly amount to this number.

The Chinese character forms, in reality, an abstract, philosophical language, such as has long been the theme of speculation in Europe,

though it is generally regarded as an absurd and impossible reverie. It is not indicative of sounds, but of real objects and ideas; and consequently it is read and understood by at least twenty different nations, who would scarcely understand a word of one another's oral language, and would all use different words to express the same meaning. The only European characters, analogous to the Chinese symbolical written language, are our numeral, algebraical, astronomical, and chemical signs, which are constructed on the same abstract principles. The Chinese, however, sometimes contrive to make these singular characters perform a double office, and express sounds, as well as ideas; as when they write down English names, which another person can pronounce with great accuracy. As far as I have been able to learn, however, this can only be accomplished by persons who use the same spoken language.

The Anam language is simple, original, and monosyllabic. What relations it may possibly bear to some of the spoken monosyllabic languages of China, to the Man-chèw Tartar, to the Korean, Formosan, Likyu, or rather Riu-kiu languages, I cannot possibly pretend to determine; but it certainly has very little affinity to the Mandarin or court language of China, which is properly termed Khunn; to the Kông-tông, or language of Canton; to the copious polysyllabic and inflected Japanese; or to any of the other Indo-Chinese languages.

It is certainly possible to find several Anam vocables which coincide both in sound and signification with words in the Khunn or Mandarin-Chinese, and also in the Kong-tong, as well as others, which closely

resemble T'hay or Siamese vocables; but nevertheless, all the essential parts of the Anam language are original and unconnected with any of the other monosyllabic languages, of which I have any knowledge. BARROW, an authority of some weight, in his "Voyage to Cochin-China," seems to consider the Anam as a derivative from the Chinese, " because it is constructed on the same principle." (pr. 301.) "The spoken language," he observes, "has undergone a very considerable change, which is the less surprising, as the inhabitants of the northern and southern provinces of China, are unintelligible to each other; but though it has been altered, it does not appear to have received any improvement, neither from additions of their own, nor from the introduction of foreign words." (p. 322.) The precise meaning of this sentence, I confess I do not understand. The mass of the Anam language, whether nouns, verbs, or significant particles, is totally different from that spoken Chinese language with which he has compared it; and he himself admits, "That it is so much changed from the original, as to be nearly, if not wholly, unintelligible to a Chinese." The Anam nation employ several sounds and letters which are incapable of being pronounced by a Chinese, such as b, d, and r. The particles which form the cement, or construction of the language, are also different; and in addition to all these, the Anam language has a peculiar character of its own, which is not understood by the Chinese. It is difficult, after this, to conceive what similarity exists between the Chinese and Anam, unless that they are both monosyllabic languages, and that the signification of terms is regulated, in a great measure, by their accentuation. But though the same monosyllables occur, and though they are also accented frequently

in a similar manner, yet even in this case, the signification of these monosyllables is, for the most part, totally different. In the syntax or construction of the two languages, there is also a very great difference, for in almost all the instances in which the Barma language differs in construction from the Malayu, Thay, and Anam, the Chinese agrees with the Barma, and differs from the three others. Thus, when two substantives follow each other, in Chinese and Barma, the first is in the genitive or oblique case; whereas, in Malayu, T'hay, and Anam, the second is in the oblique case. Sometimes, too, the Chinese order of arrangement differs equally from them all. Thus, in Chinese, the adjective generally precedes the substantive, whereas it follows it in Malayu, Barma, Thay, and Anam. It must be observed, however, that when the term Chinese is applied to the spoken languages of China, it is used in a very wide signification, unless some particular province be specified. The Chinese colloquial languages appear to be more numerous than the Indo-Chinese tongues, and equally unconnected with each other. BARROW himself declares, that scarcely two provinces in China have the same oral language. (Travels in China, p. 244.) While the nature of the Chinese character is still so imperfectly understood, it is not surprizing that the investigation of the spoken languages of China has been totally neglected. In the course of some enquiries that I made among the Chinese of Penang, I found that four or five languages were current among them, which were totally distinct from each other, and the names of several others were mentioned. I was informed that the principal Chinese languages were ten in number; but I have found that considerable variety occurred in the enumeration of their names, and suspect that they are considerably

more numerous, in reality. The following is one of the lists I received of these ten languages; but I have since been informed that it relates only to those which are spoken in the southern and western provinces.

1.	Kông,		6.	Lŭi,
2.	Wáy,		7.	Limm,
3.	Nâm,		3.	Khunn,
4.	Chéw,		9.	Síw,
5.	Séw,		10.	Kunng.
1	1.			

Of these, as has been stated, the first is represented as the language of Canton, and the eighth as the Mandarin language, or that which prevails in Pekin. To this list may be added the following:

11. Hy	ong-san,	** /1 31		14. Pún-ngi,	ांग्यां ।	. 5: [/.,
12. Sur	-tukk,	, i 100	a Wai i-	15. Tông-khún,	i et flot	is will si
13. Na	m-hới,	-114 L		16. Fo-khín.	111	Listendard

The last of these is denominated Chin-chew by the Chinese of Macao; but the language spoken in Macao itself, is the Hyong-San. This enumeration, however, is extremely imperfect; nor have I been able to determine which of them are to be accounted original languages, and which dialects. Neither, without particular investigation, is it possible to ascertain, whether the Anam language may not be included in this enumeration, though I am rather inclined to the contrary opinion.

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The Anam language has neither genders, numbers, nor cases; moods, tenses, nor conjugations; all these are supplied by the use of particles and the juxta-position of words, as in the other monosyllabic languages.

The same word has often the signification of both a noun and a verb, and its particular use, in such a case, is to be determined by the context, and the collocation of words in the sentence. The principles of collocation in sentences are equally simple as in the other monosyllabic The adjective generally follows the substantive, as in Malayu, Barma, and T'hay; but when two substantives come together, the last of them is in the oblique case, as in Malayu and Thay, but contrary to the Barma order of arrangement. Thus, the phrase "the master of the house," is, in the Anam language chúa nyà; but nyà chúa signifies the house of the master. In Malayu, these two phrases are rendered by tuan ruma, and ruma tuan; and in Thay, by chan run, run chan; but the Barma follows a different order, and renders them by in-sak'heng, sak'hengin, where in signifies house, and sak'heng, master. The substantive verb is often omitted, as being reckoned inherent in adjectives, especially when preceded by the demonstrative pronouns. Thus, núi này kaw, this mountain high, i. e. is high, the assertion being implied. The nominative precedes the verb, the preposition the word which it presides over, the adverb adheres to the word which it modifies, the relative is wanting altogether, copulative conjunctions are generally omitted, and the peculiar modes of expression in the Anam idiom are chiefly such as result from the manners and habits of the people. The moods and tenses of verbs are formed by significant particles as in the other monosyllabic languages. As the Anam nation are equally formal and ceremonious as the Chinese, in their phrases of urbanity, and equally accurate in marking, with a minute and tedious precision, the degrees of respect and honour due to every person, in the several relations of stranger, acquaintance, neighbour, relation, parent, magistrate, and all the several degrees of magistracy and office; a great deal of the idiom of the language consists in the different modes of expressing the respective relations subsisting between the speaker and the person addressed: hence originates the number of personal pronouns, expressive of these relations, as well as numerous circumlocutory forms of expression; the genius of both the Anam and the Chinese language requiring, that as often as possible, appellative nouns, and names of office, dignity, relationship, or consanguinity, should be substituted instead of the simple personal pronouns. Thus, a husband addressing his wife, and using the pronoun I, instead of saying taw, ta, or gua, any of which has the signification of the simple pronoun I, ought to say anh, which signifies elder brother; and his wife, on the other hand, ought either to denominate herself toi, handmaid, or éng, younger sister; a woman, in like manner, addressing herself kindly to another, who is either younger in years, or inferior in rank, ought always to denominate herself elder sister; a husband addressing his wife, in polite terms, ought always to term her younger sister; and, in general, speaking to a young woman, she should use the same expression, but an old woman he ought to term bau or aunt. A lover, addressing his mistress, terms her younger sister, while she, in return, terms him elder brother. A son, addressing his father, ought not even to term him cha, father; but anh, father's elder bröther; chu, father's younger brother, or cau, mother's brother: in a similar manner, addressing his mother, he ought not to term her mé, mother; but either co, father's sister, or di, mother's sister. It is easy to perceive that this minute accuracy of phraseology must have occasioned great trouble to the catholic missionaries in rendering portions of scripture into the Anam language; accordingly we find, that they were extremely distressed

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about the propriety of the terms to be used, whenever God the Father, Jesus Christ, The Holy Ghost, or the Virgin Mary, were to be introduced as interlocutors, and dismally puzzled whether the Virgin ought to denominate herself, tôi, handmaid, or mê, mother, in addressing her son Jesus Christ; as a very trivial change of phraseology, in a language so delicate in its shades and distinctions, might have given origin to the most dangerous heresy.

The accents in the Anam tongue, are of such indispensable utility, that they have been very properly termed the soul of the language, while the primary monosyllables, varied by accent, have been made to represent its body. Conversation is a species of chaunt, or recitative, as in the Chinese dialects, and the other monosyllabic languages, which has, at first, a very ludicrous effect to an ear unaccustomed to it. The intonation or accent of the Anam, struck me as entirely similar to Chinese, though Borr, the catholic missionary, to whom it was familiar, pronounces it softer and sweeter, more harmonious and copious in both its tones and accents. He adds, that every word expresses a variety of significations, according to the diversity of accents with which it is pronounced; so that, to converse in it correctly, a person ought to understand the grounds of That he ought to have an ear of the most delicate sensibility is indisputable; and as this can never prevail very equally in a numerous nation, this variety of accent gives rise to such diversity of dialect, that through the whole Anam region, every considerable village or district has, as it were, a different language, and are often obliged to have recourse to the written character, for communication with the districts in their vicinity.

Borri affirms, that the sacred books of the Anam nation, are termed Sék King, while those relative to civil subjects are denominated Sék Chuw. He adds, that the first treat of the creation of the world, the nature of mind, the different classes of intelligent beings, moral and metaphysical theology; but both these classes of books seem rather to refer to Chinese literature, than to that which is peculiarly Anam; for Sék signifies only book, Chúw is the name applied to the Chinese character, and King is the name of the books first put into the hands of the students of Chinese literature. Numerous Tru-yèn or Cheritras, however, are known to exist in the Anam language, and form the subject of their dramatic representations, in which the Anam nation are not inferior to the Chinese.

The ancient code of *Tonkin* laws, possessed great celebrity, and was highly venerated previous to the late conquest of that country by the *Cochin-Chinese*. It is represented, by the missionary Le Roy, as composed in the most elevated style of *Chinese*, and full of uncommon modes of expression. He also mentions, that it was printed with an *Anam* translation, composed by an ancient *Tonkin Mandarin*.

The Anam style is sometimes highly bold and figurative, and attains a degree of animation which is not very common among the Indo-Chinese nations of the continent. If the French version can be depended on, we need only refer, in proof of this, to the manifesto issued by the usurper Quang-tru'ng, in 1790, to quiet the minds of his subjects, alarmed at the reports of the prowess of the French auxiliaries, who aided the first efforts of the present monarch for the recovery of his throne. "Be not so

credulous as to listen to what they say of the Europeans. What superior ability should that race be possessed of? They have all the eyes of green scrpents, and we ought only to regard them as floating corpses, cast on our shores by the seas of the north." (Nouvelles des missions Orientales—p. 144.)

The religion of the Anam nation is a modification of the Budd'hist system, nearly resembling that which prevails in China. Many local and peculiar superstitions, however, are blended with it; such as the worship of the dog and tyger, to the first of which human excrement, and to the second, human flesh is offered. Traces of this worship are found among the mountaineers on the borders of India, as well as in the proper Indo-Chinese countries. Thus the tyger is worshipped by the Hajin tribe, in the vicinity of the Garrows or Garudas.

The Quan-to, an ancient race, as the name signifies, who inhabit Kaubang or the mountainous range which divides the Anam countries from China, regard themselves as the original inhabitants of Tonkin and Cochin-China; and consider the Anam as a Chinese colony. The Quan-to have a peculiar language, and write with a style, on the leaves of a plant, termed in Anam, jiwa. The Moi and Muong are also mountaineer tribes, who speak languages different from the Anam, but it is hitherto unknown whether they are original races, or only branches of the Quan-to.

The following comparative vocabulary of the Barma, T'hay, and Anam languages, with the Kong dialect of the Chinese, will convey some idea of their mutual relations and differences. A few Ruk'héng

variations are also exhibited in the Barma column with the initial R.

prefixed.				
	Barma.	T'hay.	Anam.	Kong-Chinese.
God	prá yieng	pra-cháw	chúa	sunn, t'hien-chi
heaven	nip-ban	sâwan	t'hién	t'hien
the earth	kam-ba	pi-p'hop	'dia	t'hien-ha
earth	myé R. mré	dín	'dat	ti
air	lé	lŏm	phú-jyó	húng
water	yé R. ré	nam	nák, nuwok,	sói
			thuy	
fire	mí R. meing	fài	lwa, hóa	ffôö
sun	né	tawàn	nyít, mât-bloei	thai-yong, ngút
moon	12	dùin	nguyit, mât-	ngúit
			blang	
star	kyi R. kri	dàw -	saw, tịnh	tin-súng
зky	mó	sâ	bloei	mun-t'hie»
sea	peng-lé	tă-lé	bé, bién, h ă i	hŏë
river	k'hyong R.	klong	sû	hó
	kh'rôn			
animal	tareich-chan	săt .	thu	chhôk-lói
bird	lıngék	nók	ching	chhéok-chay
fish	ugâ	plå	ka	ngù
plant	apéng	tón	thúw	ch'háw
tree	apéng gyi	tón-mái	sang	sú, sút
leaf	ayéwék	băí	lá	hyep
hill	towng	p'hu-khaw	núi	san
plain	lé-bieng	t'hung	'dów, nù	phéng
stone	kyíowk	hín .	'dá	syŭk, lië
gold	swć	t'hòng	wáng	kumm
silver	ngwé	ngùn	bak	ngúnụ
brass	ky6	t'hòng-k'ham	t'haw	t'hóng
iron	san	lék	thiet, săt	thit
tin	khé	tă kóă	thiek	syăk
rice	ch'han	ká-săn	gàw, lúa, köem	mây -
egg	ú	khài	tlueng	ch'hôni,
day	nĕ	wán	ngày	yat
night	nya	k'hùn	'dêm	man
evening	nya-né	kham	ban-hom	yâ
morning	manék	cháw	sang-nyay	chew
month	la 1	dùin	thang	yuë, ngùit

	Barma.	T'hay.	Anam.	Kong-Chinese.
уеаг	neit	pí	nien, nam, tuë,	nín
			tuôí	
man .	lu	khōn	ngúwói	yun
man	yowk-kya	pacháy	nam	nan-yun
woman	mim-ma	paning	núw	nyu-yun
father	p'haé	p'hó	cha	hù, fú
mother	maé	mé	mé	mu
husband	léng	p'húwă	chaw, phu	law k'hung
wife	maya	miya	vwó, t'he	láw-p'ho
son	sa	lok pachay	kon-blai	chí
daughter	sa-mi	lok paning	kon-gai	ngúë
elder) bro-	ako	p'hi-pachay	anh	akko
younger } ther	nyi	nong pachay	éng	tí
elder) sis-	umma	pi păjing	chi	amui
younger } ter	nyı-ma	nong-păning	éng	moéi
friend	sang-é-gyien	klú	nghí a	púng-yôw
enemy	yan-su	satrú	nghéich, thu	tzow-yun
head	gowng	huă	thù 'dâu	thôw
face	hmiek-na	ná	mat, may màt	míën
eye	hmiek-chei'ch	tá	nyan, môk, mát kon-mát	ngãn
nose	nakhaung	tămúk	múi	pi
ear	na	hu	tái	ngi
mouth	pajat	pâk .	khau, mieng, 7	0
Modell	F-3	F	lômieng	how
tooth	5Wa	fan	răng	ngá
tongue	sha	lín	luwoi	li
hand	16k	mù	tay	sŏw
foot	khyé	tín	chên	khúok
belly	wún	p'hùng, thòng	deà, bàw	ťhú
back	kyó	lang	kât	püi-hów
skin	ayé, sayé. R.	nang	dĕa	phi
J	aré, saré			
bone	ayo. R. aro	kådúk	kôt, shwang-kôt	ka
flesh	asa	núă	thit	héwŭk
blood	swè	lŭit	máu tiet	hit
milk	no-yé	nám-nóm	suwa	nín
eat	chá	kín	an	ki ĕ
drink	sók	kín-nám	üông	yûm
			*	

	Barma.	T'hay	Anam.	Kong-Chinese.
stand	mat-tat	- jùn	'du ĕ ng	khi
sit	t'haing	náng	ngôi	cho
sleep	ít	nón	ngú	mi
strike	yeik	ti	'dam, 'danh	wat
kill	sat-pi'ch	k'ha	jiet, sat	sat
red	ani .	déng	'do, tham	húng
green	acheing	k'héow	shanh	lok
yellow	awá	lùang .	hoa ka, vang	wóng
white	ap'hyu	khaw	tlang, bak	pâk
black	anék	dam ′	tham, ak	hûkk
one	tít	núng	mot	yútt
two	hnít	sông	hui	ni
three	sông	sám	teng	sam
four	16	si	bon	si
five	nga	ha	lang	úng
six	khyowk	hŏk	lak	lok
seven	khuhních	chét	bai	chhat
eight	shyít	pét	tang	pat
nine	kó	kàw	chin	kow
ten	tă ché	síp	tap	sap
hundred	tă rá	rði	klang	pák
thousand	tă t'hawng	p'hán	kin	chin
I	kyewin nou'p	k'há	tôi, táu, ta, kwa	ngo, n g a
we	khewin-nou'p-do	ráu	chúng-toi, moi-	nga-té
	•		toi	
thou	méng	mùng	bái,mâi,ngúwoi	ní
ye	maung,meng-do	sù	chúng-bái, moi-	ni-té ·
			bái	
he	dén	măn	nó	k'hi, t'ha
they	den-do	măn arài	chúng-nó	k'hi-té,t'ha-té
who	bédu, béla	kài	ai	nāko
what	bahá	arái	nào	méyă
which	bédéng	anei	nào (placed af-	nāko
	0		ter a word)	
ali	alúng	t'hang-phé 7		
		thang-mót	kak	tůtů
many	apowng	māk	deù, nyeù	16
		N n 2	, ,	
		18 11 2		

	Barma.	T'hay.	Anam.	Kong-Chinese.
few	cheich-cha-gul	hit, nit	é, dó, nyó	tuk, shaw
any, some	tăkhyo	kài kài	bko•ai	yów
above	at'hék	bŏn	tlen	shyang
under	awk	tái, láng	chuéng	ha
in	at'hé	nay	oei, tlâw	li, în
without	pyieng	nók	vo, chàng-ko,	ngoii wai
			ngö à ï	
to	ko, go	ké	cho	ni, ü
from	ka, ga	té	boei	tzong
this	di-hu ,	ni	nây	téko
that	ho-hu	nun	ey, nò	koko
there	ho hma	tino	bên-nò	nu né
here -	di hma	tíní	bên-nây	kon€
before	shyé	na	tluwòk	sin
behind	nawk	t'hi láng	fâu	hôw

XIV. PALI'.—The Pali language, among the Indo-Chinese nations, occupies the same place which Sanscrit holds among the Hindús, or Arabic among the followers of Islam. Throughout the greater part of the maritime countries which lie between India and China, it is the language of religion, law, literature, and science, and has had an extensive influence in modifying the vernacular languages of these regions. The name of this language, though commonly pronounced Bali, is more generally written Pali; but both forms are occasionally used. As the origin of the word is still very obscure, it is difficult to determine which is the more correct orthography. If, however, we could venture to identify the term with the Báhlika b'hasha, which, in the Sahi'tya DE'RPANA of Viswanátha, is enumerated as one of the languages proper to be used by certain characters, in dramatic works, the latter ought to be considered as the more correct. LA LOUBERE, on the authority of D'HERBELOT, has stated (Tom. I. p. 422) that the ancient Persic language was termed Pahalevi, (Pahlavi) and that the Persians do not distinguish in writing between Pahali and Bahali. This conjecture would be confirmed by the identity of the terms Bali and Bádlika b'hasha, were it to be established; for no donbt can be entertained that in Sanscrit geography, the epithet Báhlika is applied to a northern Indo-Persic region, probably corresponding to Balkh Bámiyan. Among the Indo-Chinese nations, the Bali is frequently denominated Lanka-basa, or the language of Lanka, and Magata, or, as it is often pronounced Mungata, atterm which seems to correspond with the Sanscrit Magad'hi, which, in many of the Vyakaranas, is enumerated as one of the dialects proper to be used by certain characters introduced in Natakas, or Hindú dramas. According to Kæmpfer, the Bali in the Khom language, and by the inhabitants of Pegu, was termed "Maccata-pasa," or Magad'hi b'hasha, as we may safely venture to render it. P. Paulinus however applies this term inaccurately to the square Bali character, instead of the language (Mus. Borg. p. 1).

This language, notwithstanding its extensive use among so many nations, and the degree of cultivation which it has received from the different tribes by whom it is employed, has hitherto attracted little attention among Europeans. The indefatigable Kæmpfer, in his Amænitates Exoticæ," has very imperfectly exhibited the Balí alphabet. La Loubere had previously published it more correctly, according to the form employed among the Siamese; his Balí alphabet is repeated in the French Encyclopædia, and Carpanius, in his "Alphabetum Barmanum," has exhibited the simple letters, according to the square form, employed by the Bármas. La Loubere, in his "Historical Relation of Siam," has published "The Life of Thevetat," said to be translated from the Balí, with a fragment termed "An Explanation of the

Patimouc, or Text of the Vinac." P. PAULINUS A S. BARTHOLOMAEO, in his "Museum Borgium," has, in his usual petulant, inaccurate, and desultory manner, exhibited some confused notices concerning the Bidagat, the Padimauka, the Kammuva, and a "Compendium of the Barma Laws," composed in the Pali language. Dr. F. Buchanan, in his "Essay on the Religion and Literature of the Barmas," (Asiat. Research. vol. vi.) has published a translation of the "Kammua," executed from the Latin version of VINCENTIO SANGERMANO, which differs considerably from the notices concerning that work published by P. PAULINUS, according to whom, in 1776, an Italian translation of it was made in Pegu, at the instance of cardinal Borgia. Whether any of these versions have been made directly from the Pali, or only through the medium of a Barma or Siamese version, is, at least, very dubious; but the enumeration may suffice to show how far the attention of Europeans has been turned to this language. It would appear, that the learned LA CROZE, in his epistolary correspondence, has also treated concerning the relations and affinities of the Pali, but I have had no opportunity of consulting the collection of his letters. P. PAULINUS, in his coarse, acrimonious, and offensive way has also obtruded on the public, some conjectures concerning it, but the publication of his "VYACARANA, seu locupletissima Samscrdamicae linguae Institutio," Romae 1804, has given a deathblow to his vaunted pretensions to profound oriental learning; and shown, as was previously suspected, that he was incapable of accurately distinguishing Sanscrit from the vernacular languages of India."*

^{*} The philological merits or demerits of P. Paulinus form no part of the proper subject of this essay; he is only mentioned here for the purpose of disclaiming his critical authority, when placed, as it has frequently been, by European writers, in competition with such authorities in Hindú literature, as Sir W. Jones, or Mr. Colebeooke. In his Museum Borgianum he has mistaken a specimen of Malayu for Bengali; but this is nothing to what occurs in his Sanscrit Granumar. The same blunder had been

The Bali alphabet seems, in its origin, to be a derivative from the Devanagari, though it has not only acquired considerable difference of form, but has also been modified to a certain degree, in the power of the letters, by the monosyllabic pronunciation of the Indo-Chinese nations. It has dropped, in common use, some letters entirely, and accented others in a manner similar to the Udhata, Anudhata, and Swarita tones, in the system of accentuation used in chaunting Mantrás, and in reciting the Vedas themselves. Thus, it has dropped both the palatal and the celebral sh of the Deva-nagari, as well as the double consonant ksh, though the two first

made before him, by the Editors of the polyglott "Oratis Dominica;" but the following are his own. A numerous class of Sanscrit nouns form the fifth case in AT; in Tanul and Malayalam, however, a case of similar import terminates in AL; and this case, which belongs to these vernacular languages, but never to Sanscrit, has P. Paulinus uniformly substituted, in his Sanscrit Grammar, in the place of the regular Sanscrit flection in AT. This substitution of the letter l for t is not confined to those instances only, in which the analogous flections of a vernacular language may be supposed to have led to the error; it occurs in numerous instances, in which the Sanscrit and popular dialects coincide in using the letter t, and which must therefore be considered as the blunders of absolute ignorance. Thus, in the names of the tenses of the Sanscrit verb, he gives lal for lat, lol for lot, lil for lid, and lul for lud. A blunder similar to that which occurs in the fifth case of nouns, runs through a variety of the flections of the Sanscrit verb. Thus, he gives abhaval for ab'havat, bhavadal for b'havatat, bhavel for b'havut, bhuyal for b'huyut, abhul for ab'hut, abhaviszyal for ab'havishyat: but the whole work swarms with similar errors. What should we think of a Latin grammarian who should falsify the ablative case innouns, and misrepresent the third person singular in verbs? Yet this is nothing more than what has been done by the redoubted P. Paulinus, whom the learned Sylvestre de Sacy terms "un des ecrivains les plus tranchans et les plus dedaigneux;" and he has not only erred in the particular instances which he has adduced in his Grammar, but he has also laid down rules to justify his errors, as, in his rules for the permutation of the letter l into t, d, dh, &c. All his other works, that have fallen into my hands, equally abound in error, arrogance and ignorance. Equally superficial, inaccurate, and virulent in his invective, a critic of his own stamp would be tempted to retort on him his own quotation from Ennius.

Simia quam similis turpissima bestia vobis.

the first series of letters ka kha, ga g'ha, nga, it recites them ka $kh\acute{a}$ $k\grave{a}$ $g\check{a}ha$, nga pronouncing ka thrice; first, in its natural tone; secondly, softly accented in treble, as if with the tone $\acute{u}d$ $h\bar{a}ta$; and thirdly, in a deep base tone, like the $an\acute{u}dhata$ of the $Samaved\acute{a}$ Brahméns; $g\check{a}ha$ or ga is only recited once and that slightly accented, while nga suffers no alteration. A similar alteration occurs in the second series, cha, and the fifth series, pa. The vowels are generally presented in the same order as the Deva-nagari, but by a similar mode of accentuation, eighteen are sometimes employed. The peculiarities of this pronunciation are, however, more closely adhered to by the T'hay or Siamese, than by the Barma and Rukhéng nations, whose languages are neither so powerfully accented, nor so monosyllabic as the T'hay.

The form of the Bali character varies essentially among the different nations by whom it is used. The square Bali character, employed by the Barmas, differs much from that which is used among the Siamese. and approaches nearer the form of the Barma character. The Siamese Bali character is termed, by the Siamese, Nangsu Khóm, the Khóm, or Khohmén character, having, according to their own tradition, derived it from that nation. The square Barma character seems to coincide with the Bali character of Lanka or Ceylon; though in that island, Bali compositions are frequently written in the proper Sing'hala character. Of the character used in Lâw, Champa, and Anam, I have had no opportunity of judging. Carpanius, in his "Alphabetum Barmanum," p. 37, asserts, that La Loubere, in his "Historical Relation of Siam," has mistaken the Barma and Lâw characters for the Bali; and Sir W. Jones, in his 8th anniver-

thority of a native of Arakan. The fact, however, is, that LA LOUBERE's alphabet, though imperfect, as the vowels are omitted, and the powers of several letters inaccurately expressed, is the real Buli alphabet of the Siamese, and that which I have found in use among the Talapoins, both of the T'hay and the T'hay-j'hay race, however it may differ from the Bali, in use among the Barma and Rukhéng nations. This character, however, when correctly written, is not round like the proper Barma character, but formed by a number of minute strokes, placed in an angular position, like the Sing'hala Pushpákshara, or flower-character. Indeed, on comparing the two characters, the square Barma-Bali character will be found to approach nearer the proper Barma character, than the Bali of Siam.

The Ball is an ancient dialect of Sanscrit, which sometimes approaches very near the original. When allowance is made for the regular interchange of certain letters, the elision of harsh consonants, and the contraction of similar syllables, all the vocables which occur in its ancient books, seem to be purely Sanscrit. In Cheritás and latter compositions, however, some words of the popular languages of the country sometimes insinuate themselves, in the same manner as Tamul, Telinga, and Canara vocables occasionally occur, in the later Sanscrit compositions of the Dekhin. The Ball, while it retains almost the whole extent of Sanscrit flections, both in nouns and verbs, nevertheless employs this variety rather sparingly in composition, and affects the frequent introduction of the preterite participle, and the use of impersonal verbs. It also uses the cases of nouns in a more indeterminate manner than the Sanscrit, and often confounds the active,

neuter, and passive tenses of verbs. Like other derivative dialects, it occasionally uses Sanscrit nouns and particles in an oblique sense; but notwithstanding all these circumstances, it approaches much nearer the pure Sanscrit, than any other dialect, and exhibits a close affinity to the Prakrit, and the Zend.

These three dialects, the Prákrit, the Balí, and the Zend, are probably the most ancient derivatives from the Sanscrit. The great mass of vocables in all the three, and even the forms of flection, both in verbs and nouns, are derived from the Sanscrit, according to regular laws of elision contraction, and permutation of letters. Sometimes, in pursuing these analogies, they nearly coincide, sometimes they differ considerably, sometimes one, and sometimes another of them approaches nearest to the original Sanscrit. Their connection with this parent language was perceived, and pointed out by Sir W. Jones, and has also been been alluded to by P. PAULINUS, who derives his information, concerning the Ball, from CARPANIUS and Mantegatius. The fate of these three languages is also, in some degree similar. The Prakrit is the language which contains the greater part of the sacred books of the Jainas; the Bali is equally revered among the followers of Budd'ha; while the Zend, or sacred language of ancient Iran, has long enjoyed a similar rank among the Parsis or worshippers of fire, and been the depository of the sacred books of Zoroaster. It is perhaps, however, more accurate to consider all the three, rather as different dialects of the same derivative language, than as different languages; and conformably to this idea, the Bali itself may be reckoned a dialect of Prákrit. The term Prákrit, both in books, and in common use among the Brahméns, is employed with some degree of latitude. Sometimes the term is confined to a particular dialect, employed by the Jainas, as the language of religion and science, and appropriated to females, and respectable characters of an inferior class, in dramas. Sometimes it includes all the dialects derived immediately from the Sanscrit, whether denominated Prákrit, Mágad'hí, Súraséni, Pais'achí, or Apábhrans'a; and sometimes it is even extended to the Désa-b'háshas, or popular tongues of India, as Mahrásht or Mahratta, Canara, Telinga, Udia and Bengalí. According to the extended use of the term Prákrit, it may certainly include both Balí and Zend; and if more extensive research should justify the idea derived from an imperfect investigation, I apprehend that the Balí may be identified with the Mágad'hí, and the Zend with the Súraséni, of Sanscrit authors.

These three dialects, the *Prákrit*, *Bali*, and *Zend*, have been regularly cultivated and fixed by composition. The same laws of derivation are applicable to the formation of all the three; but yet there is often considerable diversity in the forms which particular words assume, as appears from the following comparative specimen.

	Sanscrit.	Prákrit.	Balí.	Zend.
man	purushah	puriso	burutsa	peôoroscho
woman	strí	trí	it'hi	strée
daughter	putrí	puí	butri	Pothré
ite.	1.21	bhariá)	p'hiriya	peéré 🍹
wife	b'harya	bhaja 🐧	h muka	perena \$
father	pitá	piá piăró }	pita	fedré
mother	matá	maáro }	matta	maté
wind	váyuh	baú	vayo	vato
		002		

	Sanscrit.	Prákrit.	Bali.	Zend.
fire	agnih	aggih	ak hi	atéré
	· ·		atsa 7	aspo
horse	as'wah	ásó	acha }	aspahé
hog	s'úkarah	suaró	sukaro	soubaré
· ·				sunish)
dog	s'wá, s'wánum	sunău	sunak'ha	sepa }
buffalo	mahishah	mahisó	mahingsa	mesha
hand.	hastah	hattó	hasti	zesté
	suryah ?	suró 7	Suriya	houeré
sun	ravih }	rai }	ravé	reeoué
	•	1 /1 /		azra 🤰
tiger	vyagrah	bag'hó	p'hayagho	vuzra }
Amas	vrukshah	rukhó)	rukha	oroťhé
tree	vruksnan	vuch'hah	rukna	orot ne
		gámam)	khaman	gueoué
village	grámam	gátiani }	Kilaillali	840040
thé lingum	lingam	linkam	lankan	henghâmé
		pabbau 7		1
mountain	parvatah	paŭta }	bapato	burezoeté
world	prit'hivi	pahaví	pattwé	peété
forest	aranyam	rannam	aranja	heramn
he enters	pravishatí	pavishaï	pawisi	freescheté
they will come	ágamishwantí	á gamihiï	akamisunti	aoontião
he makes.	karoti	karoi	karoti	kereté
		atti 7		
he is	asti	achi	hathi	asté
		asai		
seven	saptah	sattó	ssapta	hapté
heaven	swargah	saggó	faggô	s pér é zé

In this specimen, the *Prâkrit* words are selected from the *Manôrama Vritti* of B'hamaha, and the *Prâkritalanke'swarah* of Vidya' Vinód'ha; the *Balí* are taken at random from the *Kumárá-Bap*, *Chitamnán*, and *Hatamnán*; and the *Zend*, from the vocabularies of Anquetil du Perron, whose orthography, since I have not been able to procure the original *Zend*, has been preserved, however inaccurate, in preference to conjectural emen-

dation; though I am convinced that an orthography, more conformable to the original, would render the connection of Zend, with its cognate dialects, more apparent.

Specimen of Bali from the Hatamnán.

Sagge' kámécharupé giri-s'ik'hara-gaté chántálikk'hé vimáné dipé rat'hé-cha gamé taruvanagahané géhavat'hamhí k'hétté.

B'hummá cháyàntu deva: jala-t'hala-visamé yakha-gandabba-naga tit'hantám-antikéyám munivara-vachanam sádavo mé sunantu.

D'hammassa-vanakáló-ayum bhaddanta namótassa-B'hagavató Arhattó s'amma sambuddassa.

Yésantá-santachitta-tisarano-saraná éta-lókantarévá bhummá-bhummá-cha-dévá guna-gana-gahaná d'háyatá sabbakálam été áyántu dévá varakanakamaé méru-rájé vasantó.

Santósahétam munivaravachanam sótam maggam sammaggam sabbésú chakka-vàlésú yakhá dévá-cha

Which may be thus restored into Sanscrit, without the radical change of a single word.

Swarge' kámécharúpé giris'ikharagaté chántaríkshé vimáné dipé rashtré grámé taruvanagahané grihavatihi kshétré.

Bhúmau cháyántu dévá jalast'hala-vishamé yaksha-gandharva-nágás tis'hantám antiképám munivarachanam sád'havó mé s'rinantu.

Dhermas'ravanakálóyum b'hanyantam: namastasyaB'hagavató Arható-samyak sambudd'hasma.

Yésantah s'anta-chitta trisarana s'araná ihalókóttarévá b'humau ab'humaucha, dévá gunaganagrahaná d'hayantah servakálam: été áyántu dévā varakanakamaé mérurājé vasantah.

Santóshahétum munivaravachanam s'rótum agré samagram servéshu chakravaléshu yakshá dévéscha brámhanah.

The Devas frequent Swurga, Kamarupa, the mountain tops, and atmosphere, in their cars, and on earth, they visit the Dwipas, the fields, cities, recesses of forests, habitations, and sacred places. In inaccessible places, by land or water, the Yakshas, Gand-hervas and Nagas reside, in the vincity of waters. Listen to me, ye devotees, while I recite the words of the Munivaras: this is the time for hear-

ing sacred things—(the devotees reply) Say on. (the speaker proceeds) Reverence to BHAGAVATA ARHATA, the all-comprehending. Those who hear, shall become pure of mind, and TRISARA' shall
protect them both in this and other worlds: the Devas, earthly and unearthly, possessed of various
qualities, constantly present themselves to their thoughts, and the Devas who reside on Meru, the chief
of mountains, of pure gold, frequent them. In the full and perfect hearing of the words of the
Munivaras, the Yakshas, Devas, and Bramhanas delight above all else.

This specimen may serve, in some degree, to ilustrate the relation which the Bali bears to its parent Sanscrit. The passage is chosen at random, but considerable portions of Bali have been subjected to the same process with a similar result; and I am satisfied that it applies equally to Prakrit and Zend, though words of an origin foreign to Sanscrit, may occasionally be expected to occur in all the three dialects.

After having thus briefly stated the origin of both the Bali language and written character, I should, in conformity to the plan which has been followed in this rapid sketch, proceed to the illustration of its characteristic structure and grammatical peculiarities, with the relations which it bears to Prâkrit and Zend; but these, with a view of Bali literature, and its influence, as a learned language, on the vernacular Indo-Chinese tongues, I reserve for the subject of another essay. The politeness and literary zeal of Mr. Colebrooke, have furnished me with ample facilities of investigating the Prâkrit, in all its variety of dialects; but the paucity of my original materials, in Bali, and the total want of Mss. in Zend, have hitherto prevented me from giving the subject so full an investigation as its importance requires; but if the necessary materials can be procured, I hope to be soon able to submit to the Asiatic Society the result of my enquiries. Of the

Bali language, different Koshas and Vyakaranas are known to exist; and several of them are to be procured in Ceylon, as the Ball Subdamala, Balavatara, Nigandu and Nigandu Sana. Of the Zend, various alphabets and vocabularies, as well as original compositions, are extant; but no set of grammatical forms, with which we are acquainted. The learned Tychsen, in his " De Cuneatis Inscriptionibus Persepolitanis," 1798, recomdissertation mends, earnestly, to the Asiatic Society, to form grammars and lexicons of the Zend and Pahlavi; and this must undoubtedly be performed if ever the subject be accurately investigated; for as yet we are imperfectly acquainted even with the true arrangement of the Zend alphabet, though it is probably the origin of the ancient Kufic character, if not the actual Himyaric character itself. I have at present little doubt that the character of the ancient Zend, or as it is termed, according to ANQUETIL DU PERRON'S orthography, Azieanté, is derived from the Déva-nágari; for that author himself admits that the vowels coincide with the Guzeratti, and hints that in some alphabets the consonants also have a similar arrangement. Numerous circumstances likewise lead us to conjecture, that if ever the Persepolitan inscriptions in the Arrow character are decyphered, it will be on the principles of this alphabet. NIEBHUR has stated, from actual observation, that the characters of these inscriptions are certainly written from left to right, like the Devanagari, and the alphabets derived from it. If this authority can be depended on, it completely sets aside every attempt to explain them by any alphabet written from the right hand to the left. A subject, however, like the Arrow character, concerning which there are almost as many opinions, as authors who have engaged in the discussion, can never

be illustrated by mere conjectures, however ingenious or plausible.*

* In revising the sheets of this essay, I perceive that several omissions have occurred from the number and nature of the various materials employed, and the difficulty of classing them in the proper order of arrangement. The following additions are therefore subjoined.

To the notices concerning Malay compositions, the following may be added.

- 1. Asál agáma Islam, or the principles of the Islam faith.
- 2. Idlal agáma Islam, explanation of the Ismalic worship.
- 3. Idlalu'l fikeh, explanation of the law of Islam.
- 4. Makóta segála Raja.
- 5. Pasiru'l Korán.
- 6. Hafid Imam, ul Mumenín.
- 7. Hikaiat Miáraj Nabi Mahummed.
- 8. Hikaiat Nabi Mahummed.
- 9. Hikaiat Nabi Musa.
- 10. Hikaiat Nabi Yúsuf.
- 11. Hikaiat deripada kajadiaün Mahummed.
- 12. Húkam Islam.
- 13. Húkam Khaj.
- 14. Húkam Kanún.
- 15. Elmu Fikeh.
- 16. Elmu Falak.
- 17. Kitabu'l Faraid, riev
- 18. Kitab ul Allah.
- 19. Sijihu'l Huseinu'l Kashefi.
- 20. Samar adainu'l Islam.
- 21. Mirat al Múminin.
- 22. Mirifat ul Islam, or Punganál agáma Islam.
- 33. Permata marifat Allah.
- 24. Reazu'l lehafi.
- 25. Ruein parungan.
- 26. Núr Mahummed.
- 37. Cheritra deripada Suliman.
- \$8. Cheritra derinada al Omar.

- 29. Cheritra Raja Dewa Ahmud.
- 30. Cheritra Kobat Leila Indara.
- 31. Humsah penchuri.
- 32. Hikaiat segála Súsuhúnan.
- 33. Hikaiat Misa Túmon panji Wila Kasúma.
- 34. Hikaiat Misa Gomitar.
- 35. Hikajat Jarau Kolina.
- 36. Hikaiat Chahaju Langarei.
- 37. Silsilitu'l Salátin, or, Penúru-
- nan segála Raja. 38. Hikaiat Ambon.
- 39. Hikaiat Achi.
- 40. Hikaiat Bayan.
- 41. Hikaiat Baktiyan.
- 42. Hikaiat Tana Hitum.
- 43. Hikaiat Jowhar Manikam.
- 44. Hikaiat Datu perjanga.
- 45. Hikaiat Dewa Raja.
- 46. Hikaiat Raja Bosman dan Lokman.
- 47. Hikaiat Raja Tambik baja.
- 48. Hikaiat Raja Suliman.
- 49. Hikaiat Rajah ul Ajam o Azbah.
- 50. Hikaiat Raja Kirripun.
- 51. Hikaiat Raja Kambayu.
- 52. Hikaiat Raja Nila Datu Kawaja.
- 53. Hikaiat Runga Rati.
- 54. Hikaiat Isma Jatim.
- 55. Hikaiat Abdullah ibn ul Omar.

In addition to the list of Barma compositions, the following names of twelve popular works may be mentioned:

1.	Wi	bado,
2.	Wi	béng,

3. Padi muk,

4. Néwa,

5. Nyáwa,

6. Séng-gyó,

7. Wi-miy.8. Siho namakara.

9. Namosara Lénga,

10. Yadana sui-gyaing,

11. Tong-úchó,

12. Yédana Rasi.

The following additional notices and corrections of names refer to the list of Barma compositions given under the article Barma, according to the respective numbers.

- 1. Jainda Mana Bikhu, an account of the female ascetic JAINDA MANA.
- 2. Nunda Jaina, the history of a Deva, also named ANUNDA.
- 6. Témi, the religious institutes of TEMI.
- 7. Némi, Another of the ten great religious books of the Budd'hists, which are recited in the following order: 1. Témi; 2. Némi; 3. Janaka; 4. Sawan Nasyan; 5. B'huridat; 6. Maho sot'ha; 7. Samata; 8. Wit'hora; 9. Chanda Gúngma; 10. Wesundara. Besides these, the two following works are of great authority.

The Paréik-gyi, which is the Barma Hatamnan.

Pat'ham, which is the book of their mythology, revealed by MYA CHEWA-PARA.

- 8. Dherma pat'há, a book on Justice.
- 9. Namagara, a ritual of prayers.
- 10. Logasara and Loganithi, Moral treatises.
- 14. Paramikhan, account of Samata and T'hik D'hat.
- 16. Bongkhan, the adventures of NEMI.
- 17. Kado-khan, a religious work on the expiation of crimes.
- 26. To-twek-khan, the same work as the Rukhéng Nga-chang bráng.
- 28. Anusasana, a small book for children, like the Tamul Atisúdi and other compositions of Avyár.
- 30. Atlagat-Lénga, the Bidagat.
- 36. Hmat-chew-Bong, A System of morality.

An Account of the Trigonometrical Operations in crossing the Penin sula of India, and connecting Fort St. George with Mangalore.

BY CAPT. WILLIAM LAMBTON.

Communicated by The Honorable William Petrie, Esq. Governor of Fort St. George.

GENERAL ACCOUNT.

IN the year 1801 I had the honor of communicating to the Asiatic Society my intention of extending a geographical survey across the peninsula of India, with a view to ascertain certain positions on the Coromandel and Malabar coasts, and to fix the latitudes and longitudes of all the principal places, in the interior country, within the extent of the operations for connecting the two seas. My labours commenced in the Carnatic, in 1803, in measuring a small arc on the meridian and on its perpendicular, an account of which has been published in the 8th Vol. of the Asiatic Researches. The triangles, from which those arcs were deduced, constitute a part of the general survey under my superintendance, now extended from sea to sea, taking in upwards of two degrees of latitude. A series of principal triangles has also been carried down in a meridional direction, from which has been deduced an arc of three degrees and upwards in amplitude, giving the length of the degree, on the meridian, in lat. 11° 59′ 55″, equal 60494 fathoms, and that from a great number of observations of different fixed stars. As I expect that the detailed particulars of that are will appear

before the public in another place, it will be sufficient barely to mention it here, as being the scale from which the latitudes of places are computed.*

A full account of this survey being intended for a separate publication at some future period, when more materials will be collected, I have chosen for the subject of the present paper, that part of it which I think will be the most interesting; viz. the triangular operations in connecting the two seas, and the method by which the difference of longitude has been determined in my progress from east to west: and that it may be better adapted to the general reader, who, perhaps, may have neither time nor inclination to enter into minute detail, I shall previously state, in a concise form, the manner in which these extensive operations have been carried over the great mountains, forming the eastern and western ghauts, and

^{*} It may not be amiss to mention here, that some little irregularity had occurred at some of the stations of observation, occasioned no doubt by the plumb-line's being drawn out of its vertical position; but it is impossible to say at which of the stations this has happened, as at the three where the zenith distances were deemed the most unexceptionable, there is nothing, to appearance, which can be considered competent to produce the effect in question. One of these three is in the ceded districts, in latitude 14° and upwards. Another one is on the table land, near Bangalore, in lat. 13°, and the most southerly one is in the Coimbetoor country, in lat. 11°. The arc, comprised between the stations in 11° and 13°, gives the measure of the degree 60530 fathoms; and that, comprehended between 11° and 14°, gives only 60461 fathoms; so that there evidently has existed some cause, for deflecting the plumb-line, at one or both of these northern stations. I have, for the present, taken the mean result of the two cases, reducing them to the same latitude, 11° 59′ 55″, which is 60494 fathoms. This measure, used with all the recent measurements made in England; France, and at the polar circle, will give the mean ellipticity of the earth $\frac{1}{321}$ nearly, and therefore the polar, to the equatorial diameter, will be in the ratio of 1 to 1.003125 nearly.

through the whole extent from Fort St. George to Mangalore, being a distance of three hundred and sixty two miles and upwards, on the parallel of the mean latitude between these two places.

In the triangles of 1803, a great distance was determined between Carangooly and Carnatighur, at which stations pole-star observations were made for determining the difference of longitude of those two places, and it was then thought probable that others might be found in succession, nearly west from Carnatighur, so as to afford great distances for connecting the meridian lines; but it was afterwards discovered that Kylasghur was preferable, and it was accordingly chosen for continuing those distances to the westward, that between Carangooly and Carnatighur, as already determined in 1803, remaining the first.

Kylasghur was laid down from the side Carnatighur and Hanandamulla, being given in the 39th triangle, and the side Hanandamulla and Poonauk of the 21st triangle, was the base for finding the distance of Poonauk from Pilloor hill. From this last, and from the side Kylasghur and Hanandamulla, each as a base, the side Kylasghur and Pilloor hill has been obtained as a mean of the two results. From this, as a base, the series has been carried on to Yerracondah and Kylasghur, depending on the measured line near St. Thomas's Mount; the particulars of which have already been given in the 8th Vol. of the Researches.

The base near Bangalore (an account of which is given in Art. 2) is then had recourse to, for bringing out the same distance, and it will appear, in the arrangement of the triangles depending on that base, that all the errors

are intended to be combined in the distance between Rymandroog and Verracondah. From that the triangles are carried eastward, and the side Verracondah and Kylasghur again brought out, differing from the former two feet, which will show, by proportioning the said side to the length of the new base, that had the triangles been carried on, and that base computed therefrom, it would have differed from the measurement $3\frac{7}{10}$ inches. The distance, therefore, between Kylasghur and Yerracondah, is the second great distance for connecting the meridian lines.

The third of these distances is that between Yerracondah and Savendroog, which is had from the base Savendroog and Nundydroog to the northward, and Savendroog Deorabetta to the southward, differing 11 feet, the mean of which is made use of.

The same two sides are used as bases to proceed to the westward: the stations to the northward are Devaroydroog, Bomanelly, and Mullapunnabetta; those to the southward are Bundhullydroog, Mysoor hill, and Mullapunnabetta; and, from the mean of these, (the difference being 5 feet) the fourth great distance is had between Savendroog and Mullapunnabetta.

Finding the three stations, comprehending the two last distances, fall very favourably with respect to each other, the positions of their meridians have been fixed, with more than ordinary care, in moving to the westward. But, as this will be more particularly treated of in giving an account of the perpendicular arcs deduced therefrom, I shall proceed to state the manner in which the triangles have been continued across the great mountains that form the western ghauts.

After the observations were completed at Mullapunnabetta in Nov. 1804, the western monsoon being then over, and the favourable season on the Malabar coast approaching, it became necessary that some previous knowledge of the country should be had, as I found that my intended direction would take me across the Bullum district, which is a part of the ghauts forming a curve convex to the eastward, and, in consequence, is at too great a distance to discover any object on the sea coast; for I had all along entertained a hope of finding two or three stations, on the tops of these high mountains, from which to intersect the flag staves at Cannanore, Tellicherry, and Mangalore. For the purpose of selecting stations I had detached Lieut. KATER, one of my assistants, who after encountering many difficulties, succeeded in the choice of two, one on the top of Balroyndroog, in the Bednore province, and the other on Koondhully, a mountain in the Koorg. The distance between them has been derived from the base, Mullapunna-betta and Daesauneegooda; as is also the fifth great distance connecting the meridians of Mullapunnabetta and Balroyndroog. These stations, however, being too remote from the sea, I decided on descending the gliauts, and on the distance between them as a base, a series of triangles was carried through to Mangalore, and thence down the coast to Mount Delli and Cannanore.

It will no doubt be noticed, that the great extent from Bangalore to the sea coast required that another base should have been measured to verify the truth of the triangular operations, and it was my intention that it should have been done, but circumstances and various avocations prevented it, till the season became so far advanced that every other object would have been lost. I had to fix the meridian at Balroyndroog, and to observe

zenith distances at Paughur, the intended northern extremity of my meridian arc; and, by the time I arrived at the latter place, it was the end of April, and very shortly after that the monsoon set in. I had, however, laid the foundation for a southern series of triangles, to be carried through the Koorg to Mount Delli, which was rendered practicable by the assistance afforded me by the Koorg Rajah, to whose liberal aid I am indebted for the successful means I had in carrying the triangles over these stupendous mountains. Several beacons had been erected on commanding situations pointed out by me, previous to my descending the ghauts, some of which were distinctly seen from every part of the coast, and one of them (Taddiandamole) being visited as a station, the season following, I was enabled thereby to intersect the flag staves at Cannanore and Tellicherry, and also a signal flag on my former station on Mount Delli. This branch of triangles was carried on in the beginning of 1806, and commenced from Mullapunnabetta and Mysoor hill, and thence to Bettatipoor, Soobramanee hill, Taddiandanole, Kunduddakamully, Mount Delli, and Baekul. From the distance between Taddiandamole and Mount Delli, Cannanore, and Tellicherry, have been laid down; and upon the distance between Baekul and Kunduddakamully, a branch of triangles has been carried up for finding the distance from Bullamully to Kunnoor hill, which was also determined by the northern series, and there is a difference of $3\frac{7}{10}$ feet. I have been more particular in giving an account of this southern series, because the object was to do away any doubt that might exist, as to the accuracy of the northern one, from the want of a base on the Malabar coast; and I think, so far as regards nautical purposes, no error, of any importance, can exist. It will, however, be necessary that a base line be measured

near Mangolore, from which all these distances, near the sea, should be derived anew, when a more minute survey of the coast is made.

As the situation of the places on the Malabar coast, and their relative positions, with respect to the observatory at Madras, and other places on the coast of Coromandel, constitute a most important part of this survey. I have left nothing undone, in that respect, to give full and entire satisfaction.— But the great accuracy required, in these low latitudes, in ascertaining the length of a degree of longitude, has called forth more than ordinary attention; and I have reason to hope, from the many favourable and concurring circumstances, that my endeavours have been rewarded with success. The three stations best situated for determining the length of an arc, perpendicular to the meridian, are Yerracondah, Savendroog, and Mullapunnabetta; their respective distances from each other being nearly 67 miles; and lying in a direction very nearly east and west, the spheriodical corrections for the angles are trifling. All the other great stations have therefore been used for connecting the meridian lines, their latitudes and longitudes being computed spherically by using the oblique arcs, as obtained on the elliptical hypothesis, the perpendicular degrees having been found equal to 60748 fathoms, and the meridional degree 60498 fathoms in latitude 12° 55′ 10", which is the latitude of Savendroog, as had by referring to the latitude of Dodagoontah, the great station of observation, (Art. 8) for fixing the point of departure.

The scale of 60748 fathoms, for the length of the degree perpendicular to the meridian, in lat. 12° 55′ 10″, is considerably different from what was formerly obtained from the observations made at *Carangooly*

and Carnatighur, and reduced to the same latitude; but this is not to be wondered at, considering under what great disadvantages they were made, and the extreme accuracy required in making them: and it may be further remarked, that Carnatighur is by no means an eligible station, on account of the great mass of mountains on the west, and the low sandy plain to the east, which comes to the foot of the mountain. Such an inequality of matter must doubtless produce a great lateral attraction, and sensibly affect the instrument. The station on Balroyndroog, on the top of the western ghauts, has been laid aside on a similar account.

The relative positions of Savendroog, Mullapunnabetta, and Yerracondah, having been fixed with great accuracy, the connection with the observatory at Madras is effected, by working back to Carangooly, by means of the oblique arcs, (Art. 15) and then using the northing and easting, and computing spherically, by converting the easting into an arc at right angles to the meridian of Carangooly, and passing through the observatory; and also using the co-latitude of the point of intersection of the said arc and meridian. From this computation, the latitude of the stone pedestal in the centre of the observatory is had equal 13° 4′ 8".7. of the flag-staff at Mangalore, is deduced from the meridian of Balroyndroog, by using the southing and westing, in a similar manner as at Carangooly, with respect to the observatory. It is thence found to be in latitude 12° 51′ 38" N. and 34′ 50" W. from the meridian of Balroyndroog. summing up the respective differences of longitude, we shall have 5° 25′ 23′ for the longitude of Mangalore west from the observatory; to which add 2' 22", the easting of the church steeple in Fort St. George, we get 5° 27' 45"

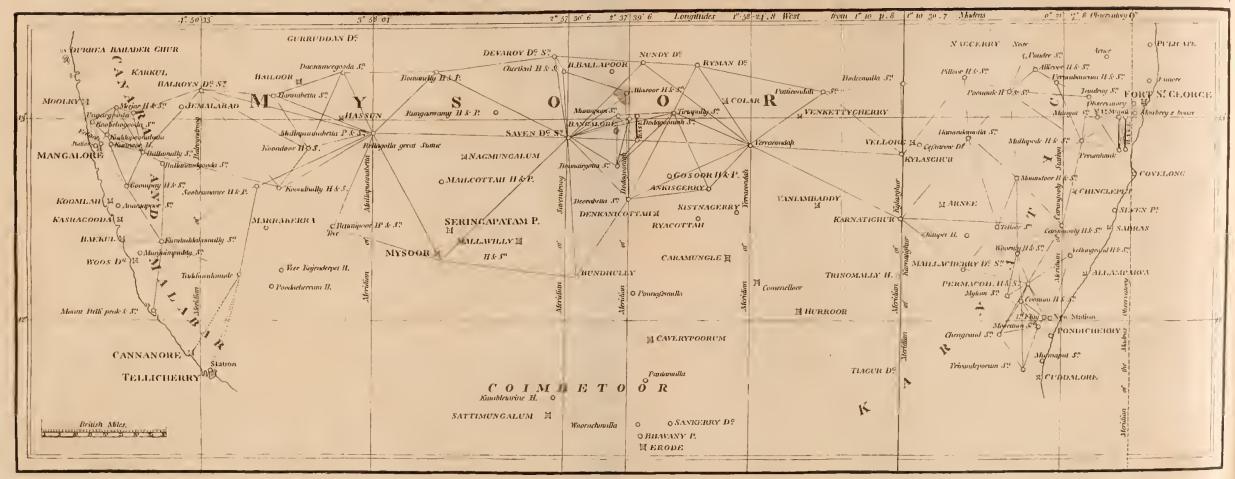
for the difference of longitude between the steeple in Fort St. George and the flag-staff at Mangalore.

The meridians of Carangooly and Balroyndroog are also used for fixing the latitudes and longitudes of other places on the two coasts, as will be seen in the detailed account (Art. 15); so that by having the positions of a few places accurately laid, the general form of the peninsula may be determined, and a foundation laid for carrying on more minute surveys, both along the coasts, and in the interior. I have given here the mode of computing the positions of the most remarkable places on the coasts, and of the great stations connecting the meridian lines. But from these different meridians, the latitudes and longitudes of other places are fixed by using the eastings and westings, and the northing and southing from the great stations, and computing spherically; so that the whole together amount to near six hundred. I have subjoined to this paper an alphabetical list, which includes the most remarkable places within the extent of the survey; and I have also added a table, giving the perpendicular height of all the great stations above the level of the sea, and the ultimate comparisons of the height of a station on the beach, near Mangalore, as had by computing from this coast, and by measuring from the low water mark on the other, where there appears an error only of $8\frac{6}{10}$ feet. This table also contains the terrestrial refractions.

It will be unnecessary to say more here, there being sufficient, by referring to the plan of the triangles, to convey a general idea, and the adjoining detail will furnish all the materials for a more critical examina-



GENERAL PLAN OF THE TRIANGLES.



tion of the subject. The work is now grown to a magnitude far exceeding what was first proposed, and will, I hope, be adopted, as a foundation for a more finished superstructure, in times to come. The task has been an interesting one, and by no means arduous. Freed from restriction of every kind, and permitted to act under the most liberal conditions, I have been enabled to obviate every difficulty; which otherwise must have embarrassed my exertions, and defeated the ultimate objects of my labours.

SECTION. I.

Series of triangles taken up at Hanandamulla and Pilloor Hill, and carried to the base near Bangalore.

I. ANGLES.

At Hanandamulla.

Between	. And	,
Kylasghur	···· Pilloor Hill	98° 13′ 34″.6)
		31 .6 33″.6 34 .5
		34.5)

At Pilleor Hill.

Kylasghur	·························Hanandamulla ··················42 59	9.25 7	
		5.8	- 8
		8.95	
	Patticondah · · · · · · · · · · · · 50 13	25.7	06 99
		26.95 }	20.00
	Bodeemulla ······ 50 36	20.75 }	2107
		21.4	21.01

At Kylasghur.

Referring flag,Patticondah,53	2 34 33.	62 33.81
Yerracondalı89 1	7 57.	16 } 57.61
-	59.	66 }

Qq2

At Kylasghur, continued.

	210 11 graog nar, continued.
Between	And
Referring flag,	····Bodeemulla ···············2° 15′ 44″
*	44.25
	44 > 42".9
	42.25
	40)
	Pilloor Hill
	54
	53.25 54.15
	53.12
	53.75
	54.25)
	Patticondah · · · · · · · · · · · · · · · · · · ·
	Yerracondah
Dattionalak	Yerracondah
rathcondan	···· Letracongan ························· 15 25.80
Potoming fug	Patticondah
Referring hag	Bodeemulla 2 15 42.9
1	Doucemana ***********************************
Patticondah	Bodeemulla
Latticolidan VIIII	200001111111
Referring flag	Bodeemulla 2 15 42.9
Total India	Pilloor Hill
`a	
Bodeemulla	Pilloor Hill
Referring flag	••••Pilloor Hill ••••••33 9 54.15
	Patticondah · · · · · · · · · · · · · · · · · · ·
	- 1
Pilloor Hill	····Patticondah ·······86 12 27.96
Referring Lamp	···· Pole-star's W. elongation, ···· 3 28 57
	52.4
	55.25
	53.5
	At Bodeemulla.
Kylasghur · · · · · · · · · · · · · · · · · · ·	Patticondah, 85 23 41.5 }
	39.1
	Pilloor Hill93 58 8.3
	5.15
	7.15 > 6.45
	7.4
	4.25
	At Patticondah.
10	
Rymandroog	····Yerracondah ·················56 22 19.75 } 20.37
	21.

At Patticondah, continued.

Between	And	
Yerracondah	Kylasgliur,101° 21′ 48″.45	} 48".77
Yadaadaan	49.1 ••••• Bodeemulla •••••• 43 49 34 .8	}
Kylasghur·····	Bodeemulla 43 49 34 .8	
	34 .95	36.2
	37 .8	
	36 .3)
	At Yerracondah.	
Referring flag	Rymaudroog	`
2000	28.6	1
	24.85	26.57
	28 .55	1
	26 . Tirtapully Hill 73 22 43 .25	י
	42 .75	
	46.25	
	46.5	
		45.9
•	46.5	{ 30.9
	46.75	
	47 .25	
	46 .5	J
Rymandroog ·····	Patticondah 78 25 51 .85	
	50.20	
	52 .95 49 .85	
	50 .45	
Referring flag	·····Kylasghur ······84 57 10 .	ì
eV.	14 .35	
	12 .45 10 .5	
	13 .18	
	14.5.	12.48
	42.	1
•	12 .25	}
	14 .5 10 .75	
	Patticondah 42 34 24 .5	3
	22.	1
	23 :4	23.51
	24.4	1
Savendroog ·····	23 .25Nundydroog	7
	58 .47	(,,,,,
	60 .10	58.82
	58 .47	J

At Yerracondah, continued.

Between	And	
Rymandroog · · · · · · · · · · · · · · · · · ·	Deorabetta82	
		15.5 \ 15".21
5000	2 1/3	16.62
Keterring flag	Savendroog · · · · · · · · · · · · · · · · · ·	
		13.
		16.5
		14.5
		14.75 \ 14.97
		14.5
		15.75
		15.5
		ر 13.75
3 8 12	Ankissgherry · · · · · · · · 143	
•		23.5
		18.5 21.35
		20. 23.75
	Rymandroog ·····35	
	Tirtapully Hill · · · · · · · 73	•
Rymandroog	·Tirtapully Hill·····37	31 19.33
Referring flag · · · · · · · · · · · · · · · · · · ·	Patticondalı · · · · · · · · 42	
	Kylasghur ····· 84	57 12 .48
Patticondah	·Kylasghur ······42	22 48 07
i atticondan	Kylasgiui	22 40 91
Referring-flag	·Tirtapully · · · · · 73	22 45 .90
0 0	Ankissgherry · · · · · · · · · 143	
Tirtapully	• Ankissgherry • • • • 69	50 35 .45
D	Dogwolatta	10 17 01
Rymandroog · · · · · · · · · · · · · · · · · ·	Deorabetta82 Tirtapully Hill37	
	Thapany Times of the State of t	
Deorabetta	·Tirtapully Hill · · · · · · · · · 44	47 55.88
	-	
Referring flag	·Rymandroog ······35	
-	Savendroog · · · · · · · · · · · · 94	16 14 .97
n	Carrandon on	04 49 4
Rymandroog	•• Savendroog •••••• 58 Deorabetta •••• 82	10 15 91
	Deolabetta	
Savendroog · · · · · · · · · · · · · · · · · ·	Deorabetta · · · · · · · · · · · · · · · · 23	54 26 .81
	And the same states of the same	
Referring flag	· Pole-star's W. elongation, · · · · 9	
		3.85
		2.
		3.5

Between	At Yerracondah, continued. And Pole-star's W. elongation		
		3 .75 4. 5. 4 .25	
Between Yerracondah · · · · · · · · · · · · · · · · · · ·	At Rymandroog. And Patticondalı Tirtapully Hill	51.25	} 51".7
		53 .25 55 .25 52 .95	54.58
	Nundydroog	33 .9 28 .6 28 .3	> 30.05
Yerracondah	····Tirtapully Hill ······ Nundydroog ······1)
Tirtapully Hill·····	Nundydroog	72 4 35.47	
	At Tirtapully Hill.		
Nundydroog	Rymandreog	44.25 44.5 42.75 42	- 44.03
	,	50.75 50. 49.75	51.3
Deorabetta · · · · · · · · · · · · · · · · · ·	· · · Yerracondah	$ \begin{array}{c} 50. \\ 97 51 18.75 \\ 18.37 \end{array} $	18.04
Yerracondah	· · · · Ankissgherry · · · · · · · · · · · · · · · · · ·	38 16 9.9 8.6	9.25
	· · · Bonnairgottalı · · · · · · · · · · · · · · · · · · ·	95 53 43.	46.24
	· · · Bonnairgottalı · · · · · · · · · · · · · · · · · · ·	31 25 15.03 \\ 17.27 \	16.15
Muntapum Centre · · · · · · · · · · · · · · · · · · ·	···Bonnairgottalı ·····	31 25 7.97 9.95 }	8.96

At Tirtapully Hill, continued.

Between	And		
	·· Allasoor Hill ······36° S	33′ 33″.02 }	30".37
Deorahetta	··Savendroog ·······46	27.75 \ 19.96.95 \	·
	1	22.75	24.5
	• Yerracondah • • • • • • 97 • Yerracondah • • • • • • 38		
Ankissgherry	· Deorabetta · · · · · · · · · · · · · · · · · 59	35 8.79	
	At Nundydroog.		
Rymandroog	··Tirtapully Hill·····56		
		43.75 (44.
		46.75	
Savendroog · · · · · · · · · · · · · · · · · ·	··Tirtapully Hill ·····71	$\begin{pmatrix} 37.25 \\ 38. \end{pmatrix}$	
		40.75	38.55
	•	38.5	
Savendroog · · · · · · · · · · · · · · · · · ·	··Yerracondah ······89	55 29.25)	
		28.5	29.02
		30.34	
Savendroog · · · · · · · · · · · · · · · · · ·	·· Devaroydroog ······49		
		52.92 (54.17 (53.48
		55.42	
	At Bonnairgottah.	•	
S. end of the Base	· · Muntapum Station · · · · · · · · · 38		31.15
Muntapum Station · · · · · · · · · · · · · · · · · · ·	··Tirtapully Hill·····51	32.28 § 7 53.25)	
1		53.6	54.62
Tirtapully Hill	· Muntapum Centre · · · · · · · 51	57.) 5 56.65)	
1 3		56 LE	56.91
		59.55 5 4.9	50.91
Muntapum Centre	·· Savendroog ······70 5	0 05 06)	00.01
Savendroog	•• Allasoor Hill •••••• 75 5	27 4//	23.91
		28.5	27.92
		28.	

At Bonnairgottah, continued.

Between	And			
Dodagoontal Station	····· Savendro og ····· 83°	20	14".75 17 .5 16 .25	16".17
Savendroog · · · · · · · · · · · · · · · · · ·	····Tirtapully Hill ······121	58	22 .76 } 21 .59 }	22,17
	At the Muntapum Centre.			
Bonnairgottah	Tirtapully Hill, 97	28	54 .85	55.27
	Savendroog · · · · · 69	50	55 .5) 45 .25) 47 .75	46.5
Tirtapully Hill	Savendroog · · · · · · · 167	19		41.77
	At the Muntapum Station.			
N. end of the Base,	S. end of the Base 56	56	41.4	41.42
S. end of the Base,	Bonnairgottalı 35	3	42 .25) 56 .05) 54 .75	
	4		54 .25 57 .75 57 .5	56.05
Bonnairgottah	Tirtapully Hill 97	26		53.39
	At the S. End of the Base.			
N. end of the Base	Muntapum Station 33	43	58 .15	60.06
			61 .27	00.00
	Dodagoontah Station · · · · · 17	38	47 .85 45 .6 48 .72	47.51
Muntapum Station	Bonnairgottah106	9	47 .88) 36 .25)	
			39 .76 (36 .5 38 .38	37.72
			99.00	

At the N. End of the Base.

Between	And
S. end of the Base	Muntapum Station
	Dodagoontah Station
	At Deorabetta.
Savendroog · · · · · · · · · · · · · · · · · ·	Tirtapully Hill
1.	53 52.75 52.9
Bonnairgottah	Ankissgherry 98 54 18
Savendroog ·····	Tirtapully Hill
Savendroog ·····	····Bonnairgottah ······ 32 56 37 .17
	Tirtapully Hill · · · · · 79 40 52 .9
Bonnairgottah	Tirtapully Hill
Tirtapully Hill	Ankissgherry 52 10 04 .27

II. MEASUREMENT of the Base Line near Bangalore.

This base was executed by Lieut. Warren, of H. M. 33d Regt. then one of my assistants; and was intended as a datum for extending the triangles to the *Malabar* coast: and also as a base of verification to the triangular measurement brought from the base near *Madras*; and it appeared that, by continuing the computations the whole distance, and making this base one of the sides of the last triangle, the computation exceeded the measurement only $3\frac{\pi}{3.0}$ inches,

No further account need therefore be given of the manner of performing this very important and delicate part of the work, than that in addition to the apparatus used in the former measurement near St. Thomas's Mount, there was a transit telescope, in all respects similar to that mentioned in the account of the trigonometrical survey of England for fixing objects in the alignement, and taking the elevations and depressions at the same time. The manner of using it was as follows:

When the instrument was placed at a sufficient distance behind the commencement of an hypothenuse, so as to see distinctly the mark placed on the head of the drawing post, and the elevation or depression of the hypothenuse finally determined, the instrument being covered from the sun by a small cloth pandal, remained in that position, till four or sometimes five chains were measured. Previous to removing it, a small hooped picket was placed, by signal from the person at the transit, at a proper distance behind the termination of the last chain. In fixing the spot for this little picket, a common rod, with a sharp point was used, and the telescope of the transit depressed to the place on the ground intended to be marked. After the spot was fixed on, and the picket driven down, the instrument was removed, and placed in the alignement, with the plummet hanging over the centre of the little picket, and then a new hypothenuse was laid out, or the former one continued.

When the hypothenuse was terminated, a register picket was driven into the ground, opposite to the arrow of the chain, and in such a manner, that when the brass head was fixed thereon, the slide might be parallel to the chain, and very near it. A piece of wood was contrived to be placed upon the brass head, and fixed by a screw, which pressed against the end of the slider, so that when that slider was moved by its own screw, the wood, thus attached, moved with it, in the direction of the alignement, as nearly as the eye could judge. On the top of this wood was placed a T, having also a motion in the same direction with the brass slider, to expedite the operation; and on the top of this T, a brass ruler, in length about six inches, was placed, having a sliding motion at right angles to the other; and in the middle of the projecting end, was a mark from which the plummet was suspended, and by the two motions, at right angles to each other, the plumb line was easily brought to coincide with the arrow terminating the hypothenuse. A like operation was gone through with the commencement of the next hypothenuse, and the arrow brought to coincide with the same plumb line. Here the distance of each arrow above or below the brass rule was noticed as in the former measurement.

If, after the removal of the transit, the same hypothenuse was continued, the register picket, at the end of the chain, was left standing, and when the instrument was brought into the alignement with the plummet over the mark, nothing was required but to place the telescope at the former elevation or depression, and move the cross vane which is applied to the heads of the pickets and stands, till the appropriate mark coincided with the horizontal wire in the focus of the eye glass.

Experiments, made for comparing the Chains, previous to the Measurement.

Month.		Ther	momet	ters.		Mean of 5 Thermome- ters.	Comparisons,		
1804.	1	2	3	4	5	Mea Thei ters.			
May 28. A. M.	73 74 74 74 74 75 75 77	73 74 74 74 74.5 75 76 77 79	72 73 74 74 74 74 75 76 78	72 72 73 73 73 74 74 75 76	73 74 74 73 73 74 75 75 76	72.6 73.2 73.8 73.6 73.6 74.2 75.6 75.6 77.2	Divisions The old chain exceed- ed the new one by 17.5 16.00 15.75 16.00 15.5 14.75 14.75 15.00 14.00 Mean 15.47		

Experiments, made for comparing the Chains, after the conclusion of the Measurement.

July 12. 78 78.5 79 78 80 78.7 The old chain exceeded the new one by 18.25 80 80 79 80 80 79.8 18.00 81 80 80 77 80 79.6 17.5 80 79 80 80 79.4 18.00 81 80 80 80 79.4 18.00 81 80 80 79 80 18.00 81 81 79.5 81 80.6 18.25 81.5 81.5 81.5 81.2 18.00 82 81 80 81.5 81.2 17.5 82 81 79.5 82 82 81.3 17.25 82 81 80 82 81 81.2 17.25 82 81 80 82 81 81.2 18.25	Month.		The	ermom	eters.		Mean of 5 Thermome- ters.	Comparisons.		
July 12. 78 78.5 79 78 80 78.7 The old chain exceeded the new one by 18.25 80 80 79 80 80 79.8 18.00 81 80 80 78 79.6 17.5 80 79 80 80 79.4 18.00 81 80 80 80 79.4 18.00 81 81 79.5 81 80.5 80.6 18.00 81 81 79.5 81 80.5 80.6 18.25 81.5 81.5 81.5 81.2 18.00 82 81 80 81.5 81.2 17.5 82 81 80 82 81.3 17.25 82 81 80 82 81 81.2 17.25 82 81 80 82 81 81.2 18.25	1804.	1	2	3	4	5	Mea Ther ters.			
Mean 80.3 · · · · · · · · · Mean 17.9		80 81 80 81 81 81.5 82 82	80 80 79 80 81 81.5	79 80 80 80 79.5 80 50 79.5	\$0 77 80 80 81 81 81.5 82 82	80 80 78 79 80.5 82 81.5 82	79.8 79.6 79.4 80 80.6 81.2 81.2 81.3 81.2	The old chain exceed- ed the new one by 18.25 18.00 17.5 18.00 18.00 18.25 18.00 17.5 17.5 17.5		

Table, containing the Particulars of the Measurement.

								•/		
-	No. of the Hy-	Length of each in feet.	Angles of	Deductions from each Hy.' pothenuse.	1	dicular.		rence- from last.	Mean of 5 Thermometers.	DEMARKS
	No. of poth	Length	En & Dn	Dedic from e	Ascents.	Descents.	Above inches	Below	Mea	REMARKS.
				feet	feet	feet				
	1	600		.00648		2.7954	26. 6		94.8	Commenced the 26th May,
	2	600	0 2 17	.00012	0.3985		3. 6		86.5	1804.
	3	400		.00892		2.6684		5. 9	84.9	
	4	300	0 53 31.5	.03636		4.6707		7. 5	82.1	
	5	400	1 13 15	.09080	-	8.5224		3. 5	83.4	
	6	300	0 16 43.5	.00354		1.4595		5. 8	96.6	1
	7	900	0 13 16.5	.00675		3.4754	100	6. 9	81.9	
	8	800	0 39 15	.05208		9.1337	6. 9	4 7	81.8	
	9	300	1 15 15	.07188	- 1-	6.5663		.4. 7	80.2	
	10	300	0 47 28.5	.02682		4.1428		3. 4	88.5	
	11	800	0 57 15 1 3 42	.11096		13.3220		6. 9 6. 4	82 86.7	
	12 13	300	1 3 42 0 48 30	.05151		5.5585		8. 9	74	
	14	200 600	0 12 31.5	.00402	2.1860	2.8215		19. 5	83.4	
	15	600	0 29 1.15	.02132	2.1000	5.0658		6. 9	88.1	
	16	700	1 2 30	.11564		5.0658 12.7257		15. 0	82.7	
	17	600		.19026		15.1086	6. 4	10. 0	99.8	
	18	700		.21812		17.4740	0. 1	5. 2	95.8	
	19	200	0 45 35	.01758		2.6518	1. 1	0. 2	79.7	
	20	500	0 26 10	.01450		3.8057		25. 2	84.4	
	$\frac{1}{21}$	200		.00522	1.4471	0.0001	4. 7		90.9	
	22	200	1 10 41	.04228		4.1119	3. 4		79.1	
	23	300	Level · · · ·				3. 5		77.2	
	24	600	0 10 40.5	.00288		1.8631	46		82.9	
	25	1100	0 58 21	.15840	18.6697		15		80.5	
	26	400	0 57 57	.05680	6.7425			6. 9	87.8	
	27	500	0 46 20	.04540	6.7387		22. 1		79.2	` `
	28	700	0 16 1.5	.00756	3.2630		2. 9.		79.7	
3	29	500		.01027		3.2033		5	80.7	
	30	400	1 24 00	.11940		9.7729		10	80.2	
	31	500	1 42 43.5	.22320		14.9385	1 0	4	77.1	
	32	200	Level	00070		0.0000	4. 9		77.1	
	33	500	0 5 41	.00070	5.0157	0.8266	43. 6		83.6 85.2	
	34	800	0 25 33 0 12 1.5	.02208	5.9457		7. 5		75.6	
	35	700	0 12 1.5 0 37 39	.00610	3.4979 7.6662		8.75		86.1	-1
	36 37	700 900	0 52 16	.10404	13.6828		9		81.1	
	38	500	0 53 49.5	.06130	7.8282		16. 1		78.2	
	39	1200	0.40.44	.08424	14.2183		10. 1	8.25		
	40	800	Level	*****	••••		4. 9		74.3	
	41	200	0 52 17	.02312	3.0416		1		87.1	
	42	300	1 14 41	.07080	6.5168				80	
	43	500		.33065	18.1801		16		83.3	7
	44	300		.08313	7.0614				89.1	
-	4.5	200	0 48 42	.02008	2.8331		7. 5		93.6	

Table, containing the Particulars of the Measurement, continued.

No. of the Hy. pothenuse.	Length of each	Angles of	Deductions from each Hy. pothenuse.	Perper	idicular,	ment	nence- from last.	ot 5 meters.		
No. of pothe	Length	En & Dn	Dech from e poth	Ascents.	Descents.	Above inches	below		REMARKS.	
		00 01 05//	feet	feet	feet		0 -			
46	300	0° 9′ 27″	.00114		0.8247		6.75	71.6		
47	200 500	1 10 46.5 2 00 15	.30587		4.1172 17.4860		8.5 8.8	81 88.6		
48 49	400	0 42 30	.03056		4.9450	15. 2	0.0	89.8		
50	300	0 11 47	.00177		1.0283	11. 9		82.1		
51	200	0 16 30	.00230	.9599	1.0200	13. 9		80.8		
52	300	2 8 27.	.20940	11.2067		11. 7		89.1		
53	500	1 13 31.5	.11437	10.6929			10. 4	90.8		
54	400	0 51 43.5	.05428	6.0182			5.	74		
55	200	0 32 31.5	.00896	5	1.8922		17	88.9	7	
56	. 400	1 38 9	.16300		11.4178		8. 3	94.2		
57	300	2 33 58.5	.30087		13.4323	0. 3		91.2		
58	200 200	0 54 24 0 32 3	.02504	1 0045	3.1647	5. 5 23. 8		82.2 71.8		
59 60	600	1 58 15	1	1.8645 20.6344		12. 8		84.7		
61	600	1 51 25.5	.31514	19.4439		12. 0	8. 6	93.2		
62	700	1 26 27	.22134	17.6012				91.9	,	
63	500	0 38 16.5	.03100	5.5667			14	89.8		
64	800	0 6 14	.00128		1.4505		9. 2	79.6		
65	400	0 27 27	.01276		3.1939	7. 5		87.8		
66	500		.11300		10.6275	İ	6. 2.	73		
67	400		.17630		11.8752		12	86.7		
68	500		.45395		21.3011	8. 6		79.5		
69	200	0 14 3	.00167	0.1100	0.8174	13		71.7		
70 71	200 300	0 36 16.5 2 16 36	.01113	2.1103 11.9174		3. 8 25		79.1 94 . 9		
72	200	1 47 22	.09752	6.2453		20	2. 3	84.3		
73	400		.18208	8.3450	1	21. 2	20 0	72.4		
74	900		.06453	10.7815		4. 9		87.6		
75	300	0 35 13	.01573		3.0732		11	76.8		
76	200	1 1 43	.03222		3.5903	0. 5		70.8		
77	300	0 6 24	.00053	0.5585	,	2.75		77.6		
78	200		.17483	8.3606		00 -		87		
79	400		.06820	7.3852		26,.5		87.8		
80	800		.03512	4.6700	7.4971			80.2		
81 82	700		.01568 $.05697$	4.6799 8.2668		14.37 11		70.7 74.6		
83	400		.06008	6.9325		11.55		83		
84	400	1 3 20	.06788	7.3687		7. 1		79		
85	300		.00126	0.8727					Completed 11th July.	
- 7	Desc	ent from the			he?	,	,		1	
	_ 000	base to the				3	4			
			•		,					

20,001

6.63475 | 307.7304 | 278.4189 | 514.32 | 389.2 | 83.1

North above the South extremity of the base = 39.74 feet.

At the commencement the old chain exceeded the new one	
15.47 divisions of the micrometer = 0.00619 feet. There-	
fore 398 × 100.00619 feet will be the measure in terms	Feet.
of the new chain	39802.4636
At the conclusion the old chain exceeded the new one 17.9	
divisions, and had therefore increased 2.43 divisions =	
0.00097 feet. Hence $398 \times \frac{0.00097}{2} = 0.1930$ feet, is the	
correction for the wear, which add	+ 0.1930
The sum of the deductions from col. 4th is 6.63475 feet, which	
being increased in the ratio of 100 to 100,00619 will be	
6.6351 feet, which subtract	6.6351
Hence the apparent horizontal distance will be	39796.0215
The correction for the expansion and reduced to the standard	
temperature of 62° will be $\frac{(83^{\circ}.1-50)\times0.0074-(62^{\circ}-50^{\circ})\times0.01237}{12}$	
× 39796.0215 feet, which add	+ 3.1996
To to the second of the second	1 012550
Hence the corrected measure of the base for the temperature	
of 62° will be	39799.2211
To which add the correction for reducing all the hypothe-	
nuses to the level of the south end of the base	+ 0.0893
	39799.3104
Which being reduced to the level of the sea, will be	39793.7

III. TRIANGLES.

	Hai	ıandamulla fro	m Pillov	r Hil	1 11038	31.9	-			
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess	Error.	Angles for Calculation.	Distance in feet.			
45	Hanandamulla Pilloor Hill Kylasghur	98° 13′ 33″.6 42 59 08 38 47 22.4 180 00 04	-1".8 -0.7 -0.6	3″.1		98° 13′ 31″.5 42 59 7 38 47 21 .5				
		Kylasghur from	{ Hana	ndam		180 00 00	120135 174387.3			
	l H	anandam Ila fi	rom Kyl	asghu	r 12012	28	L			
	Hanandamulla Kylasghur Pilloor Hill	98 13 3	-0.8 -0.6 -0.7			98 13 31 .5 38 47 21 .5 42 59 7				
46		180 00 04		3.1	+0.9	180 00 00				
	Pilloor Hill from { Hanandamulla									
b	J	Yylasghur from	Pilloor	Hill	174382.	3				
47	Kylasghur Pilloor Hill Patticondah					86 12 24 .25 50 13 24 .25 43 34 11 .5				
X.1						180 00 00				
Patticondah from Kylasghur										

TRIANGLES-continued.

Kylasghur from Pilloor Hill 174382.3									
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.		
48	Kylasghur Pilloor Hill Bodeemulla	50 36 21 .07				35 25 35".5 50 36 20 .5 93 58 4			
40	-	180 00 4.57		3".2	+1".37	180 00 00			
$ ext{Bodeemulla from} egin{cases} ext{Kylasghur} & \dots & $									
	·	Kylasghur from	Bodeem	ulla	135085.	8			
	Kylasghur Bodeemulla Patticondalı	50 46 50.91 85 23 40.3 43 49 36.2	$ \begin{array}{c c} -1.3 \\ -2.2 \\ -1.3 \end{array} $	-		50 46 48.75 85 23 37.25 43 49 34	£		
49		180 00 7.41		4.8	+2.61	180 00 00	-		
Patticondah from $\begin{cases} \text{Kylasghur} \dots & 19 \\ \text{Bodeemulla} & 15 \end{cases}$									
	K	ylasghur from	Patticon	dah	194447.	5			
50	KyJasghur Patticondah Yerracondah		-1.5 -4.8 -1.4			36 15 25 101 21 45 75 42 22 49 25			
50		180 00 2.34		7.7	-5. 36	180 00 00			
Yerracondalı from { Kylasghur									

TRIANGLES, taken up at the Base, and continued back to Yerracondan and Kylasghur.

	N. end of the Base from the S. end of the Base 39793.7									
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.			
51	N. end of the Base S. end of the Base Muntapum Station	89 19 20 .75 33 44 0.06 56 56 41.42 180 00 02.23	-0.06 -0.06		+1".99	89 19 20° 33 43 59 3 56 56 40 7				
-	Muntapum Station from { N. end of the Base 26365.95 S. end of the Base 47475.03									
	S. end q	f the base from	Muntaj	rum S	Station 4	17475.03				
52	S. end of the Base Muntapum Station Bonnairgottah	106 9 37 .72 35 3 56 .05 38 46 31 .15	0.05			106 9 35.9 35 3 54.5 38 46 29.6				
02		180 00 04.92		0.47	+4.45	180 00 00				
	Bonnairgottah from { S. end of the Base									
_	Muntapum Station from Bonnairgottah 72811.7									
5 3	Muntepum Station Bonnairgottah Tirtapully Hill	97 26 53 .39 51 7 54 .62 31 25 16 .15	-0.37			97 26 53 .9 51 7 54 .2 31 25 11 .9				
		180 00 4.16		1.85	+2.31	180 00 00				
Tirtapully Hill from \{ \begin{align*} Muntapum Station										

	Bonnairgottah from Tirtapully Hill 138492.9								
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculati n.	Distance in feet.		
54	Bonnairgottah Tirtapully Hill Muntapum Centre	31 25 8.96	-0.4			51° 5 56″.5 31 25 9 97 28 54 .5			
		180 00 01.14		1″.9	0′.76	180 00 00			
Muntapum Centre from Bonnairgottah									
Muntapum Centre from Bonnairgottah 72815.6									
55	Muntapum Centre Bonnairgottah Savendroog Station	39 16 50.88	-0.6	1.7	0.41	69 50 46 70 52 23 .5 39 16 50 .5			
		180 00 01 .29		1.7	-0.41	180 00 00			
Savendroog from \{ Munpatum Centre 1 Bonnairgottal 1									

With the sides Muntapum centre from Tirtapully hill 108705.1 feet, and Muntapum centre from Savendroog = 108661.6 feet, and the included angle at $Muntapum = 167^{\circ} 19' 29''.3$ the side Savendroog from Tirtapully hill is found = 216038.9 feet.

Again with the sides Bonnairgottah from Tirtapully hill 138492.9 feet, and Bonnairgottah from Savendroog = 107968.7 feet, and the included angle at $Bonnairgottah = 121^{\circ}$ 58' 19" the side Savendroog from Tirtapully hill is found = 216038.8 feet differing from the above $\frac{1}{10}$ of a foot, and of which the mean is 216038.85 feet.

	Sa	vendroog from T	irtapull	y Hill	1,21603	8.85.			
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical VExcess.	Error.	Angles for Calculation.	Distance in feet.		
56	Savendroog Tirtapully Hill Deorabetta		-1".9 -1 .9 -2 .8	6'.6	-1".7	53° 36′ 45″.5 46 42 22 .5 79 40 52			
•	Deorabetta from Savendroog Tirtapully Hill								
57	Savendroog · · · · · Tirtapully Hill · · · · Nundydroog · · · · ·	70 48 41.9	-1.9 -2.4 -2.4	6.7	-3.1	37 44 41.25 70 48 42.5 71 26 36.25 180 00 00			
	Nundydroog from Savendroog · · · · · · · · Tirtapully Hill · · · · · · · ·								
		Tirtapully His	ll from 1	Vundy	droog 1	139499.8.			
	Tirtapully Hill Nundydroog Rymandroog	6 23 44	-1.0 -1.0 -1.2			51 31 43 56 23 42.5 72 4 34.5			
58		180 00 3.5		3.15	+.35	180 00 00			
	Rymandroog from Tirtapully Hill								

	Tirtapully Hill from Rymandroog 122112.3.								
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.		
59	Tirtapully Hill Rymandroog Yerracondah	93° 5′ 51″.3 49 22 54.58 37 31 19.33 180 00 5 21	-1 .03 		+1".01	93° 5′ 49″ 49 22 53 37 31 18			
	Yerracondalı from { Tirtapully Hill								
	Tirtapully Hill from Deorabetta 176775.8.								
	Tirtapully Hill Deorabetta Yerracondah	97 51 18.04 • • • • • • • • • • • • • • • • • • •	-3.65 -1.28			97 51 14.4 37 20 51.1 44 47 54.5			
6 <u>0</u>						180 00 00	-		
9	Yerracondah from Tirtapuliy Hill Deorabetta								
	Firtapully Hill Deorabetta Ankissgherry	59 35 8 79 52 10 4.27				59 35 7 52 10 2.6 68 14 50.4			
61						180 00 00			
	Ankissgherry from { Tirtapully Hill								

TRIANGLES-continued.

Tirtapully Hill from Ankissgherry 150322.7.								
No.	TRIANGLES. Obsd. Angles. Dieler Calculation.							
	Tirtapully Hill Ankissgherry Yerracondah		1			38° 16′ 8″ .25 71 53 17.5 69 50 34.25		
62	11. 1					180 00 00		
Yerracondah from { Tirtapully Hill								
	Tirtapully Hill · · · · Yerracondah · · · · · · Rymandroog · · · · ·	37 31 19.38				93 5 49 37 31 18 49 22 53	١	
63		180 00 05.26		4°.2	+1.06	180 00 00		
Rymaudroog from { Tirtapully Hill								

The side from *Tirtapully* hill to *Yerracondah* is the mean distance found in the triangles *Tirtapully* hill, *Deorabetta*, and *Yerracondah* and *Tirtapully* hill, *Ankissgherry* and *Yerracondah*.

		Yes	racon	dah from	Rymans	droog	20021-	1.3.			
6-1-	Yerracondah Rymandroog Patticondah	• • • •		25 51.06 1 51.7 22 20.37			-4.77	45 56	11 22	47.75 52 20.25	
			Pattico	ondah fro	$\mathbf{m}_{\leq}^{\prime}$						170605.9 235558 9

Yerracondah from Patticondah 170605.9.									
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.		
6 5	Yerracondah Patticondah Kylasghur	101 21 48.77	-4.8 -1.5	7".7		42° 22′ 49″.25 101 21 45.75 36 15 25 180 00 00			
	Kylasghur from { Yerracondàh Patticondah								

SECTION II.

Series of triangles direct from the Base near Bangalore, to Mangalore on the Malabar coast.

IV. ANGLES.

At Dodagoontah Station.

Between	And			
Bonnairgottah	.Savendroog	61° 3	4′ 54″ ′)
· ·			50	1
			49	> 51".29
			55	
			50)
Referring Lamp	Savendroog	104	4 29.68	
3 1	Pole-star's W. elongation	1 3	1 53	
·			56.25	
			51.25	
			48.5	
			46.25	
			47.5	
			45.5	
			45.5	
			43.5	
			44.5	

At Savendroog.

Devaroydroog	Between And			
Devaroydroog	DeorabettaBundhully. Hill44	41)
Devaroydroog				
Devaroydroog				40".93
Devaroydroog	· ·			(10.00
Devaroydroog			41.75	
Cheetkul Hill			-	,
Cheetkul Hill	DevaroydroogNundydroog50	14		
Cheetkul Hill Devaroydroog 6 56 11 .33 10 .83 16 .33 12 .08 12 .08 13.43 Devaroydroog Bomanelly Hill 51 25 1 .75 2 2 .5 2 .25 16 .36 66 64 .6	0			
Cheetkul Hill				> 6.37
Cheetkul Hill				
Devaroydroog			8.5	,
Devaroydroog	Cheetkul Hill	56		
Devaroydroog				1342
Devaroydroog				10.19
Bomanelly Hill)
Bomanelly Hill	DevaroydroogBomanelly Hill51	25	1.75	
Bomanelly Hill				2.12
Bomanelly Hill			2.5	
Bundhully Hill	Romanelly Hill Mullanunnahetta	4.7		
Bundhully Hill	Domatichy 1111	11		00.05
Bundhully Hill				62.35
Mysoor Hill				
Mysoor Hill	Bundhully HillMysoor Hill47			00.00
Mysoor Hill				
Referring LampMullapunnabetta	Mysoor Hill Mullapunnahetta	23		
Referring LampMullapunnabetta	22 Jood 22 Marin M			
59.25 60.75 61.25 62.5 61.5 61 62.25 62.75	· ·		6.59	
60.75 61.25 62.5 61.5 61 62.25 62.75	Referring LampMullapunnabetta90			
61. 25 62. 5 61. 5 61 62. 25 62 . 75				
62.5 61.5 61 62.25 62.75				
61.5 61 62.25 62.75				
62.25 62.75				
62.75			61	> 61.16
50 OF 1				
59.25 60.5				
62				
63.75				

ACCOUNT OF TRIGONOMETRICAL

At Savendroog, continued.

Between · And	F1005>	
Referring Lamp ······ Yerracondah ····· 92° 4′	51".25 \\ 49.5 \\ 49.5 \\ 49.5 \\ 49.5 \\ 48.55 \\ 48.5 \\ 50.62 \\ 50.5	49″.45
Pole-star's greatest W. elongation 2 28	57 .25 54 53 .5	
	57 .75 56 58 .75 58 .75 58 .25 61 .12	
At Devaroydroog.		
Cheetkul HillRungaswamy Hill82 48	17.25 18	17.62
Bomanelly · · · · · Savendroog · · · · · · · 89 33	42	44.8
Savendroog ··········Nundydroog ·······79 52	47.6 \\ 7.75\	
·	8 .75 8 8 .25	8.45
Rungaswamy · · · · · · · · · Bomanelly Hill · · · · · · · 44 59 Cheetkul Hill · · · · · · · Rungaswamy · · · · · · 82 48		
Bomanelly Hill · · · · · · · · · Cheetkul Hill · · · · · · · · · · 127 47 Savendroog · · · · · · · · · · Cheetkul Hill · · · · · · · · 38 14		
Bomanelly Hill		
Bomanelly Hill Savendroog 89 33	44 .01	
And described to		
At Bomanelly Hill.		
ilytalloo Flag · · · · · · · · Mullapunnabetta · · · · · · 175 40	0.87 0.75	1

At Bomanelly Hill, continued.

Between	And	
Hytalloo Flag · · · · · · · · · · · · · · · · · · ·	Savendroog	
	19.75	197.94
	21.5	
Referring Flag	Mullapunnabetta86 15 22.75	
	26.5 24	24.34
	24.12	
	Daesauneegooda	
	39.75 (37.25 (38.78
	40	
Hytalloo Flag ·····	Mullapunnabetta 175 40 1 Savendroog 70 9 19.94	
	bavendroog	
Mullapunnabetta · · · · · · · · · · · · · · · · · ·	Savendroog105 30 41 .06	
Referring Flag	Mullapunnabetta 86 15 24.34	
20000111119 2 1119	Daesauneegooda · · · · · · · · 131 4 38 .78	
Daesauneegooda	·····Mullapunnabetta ······· 44 49 14.44	
Daesauneegooda · · · · · · · · · · · · · · · · · · ·	Mullapunnabetta	
	14.88	14.90
D'u	Da ki P. C. i. T.	14 44
Ditto	·····Do. by Referring Lamp ·····	14.44
	Mean	14.67
	At Mullapunnabetta.	
n c · m	·	
Referring Flag	Bomanelly Hill143 22 60.5 59.5	
	60.75	
	63	60.25
	58 61	
	59	

ACCOUNT OF TRIGONOMETRICAL

At Mullapunnabetta, continued.

Between	And
Referring Flag	•• Savendroog •••••••97° 41' 34".25
	36.62
	34
	35.4 35.25
	32.5
	32.5
	33 34.5
	35.25
	33
:	36.5 33.8
	33
e e e e e e e e e e e	33.87J Mysoor Hill37 59 12
	10.75
	12.75
	12.25
	14 10.5
	12 (12.50
·-	12.25 14
	13.25
	14.5
	Daesauneegooda
	32.75
	25.25 33.6 35.5
	90 =
	Roondoor Hill
	24 .75 (22.94 22 .75
Referring Flag	
ittleining ing	Koondhully Hill 55 38 43
	44.75 43
	43.75 \ 44.68
	45 .25 46 .25
Keendhully Hill	46.75
Jaconson Janes Commission Commiss	
	61 61.75 } 60.65
	60.5
	5 8.5)

OPERATIONS IN THE PENINSULA.

At Mullapunnabetta, continued.

Between	And	
Referring flag	Bolroyndroog96° 3	6′ 48″ 46.25 1
		44
		49.25
		44.75
		45.25
	•	47.5
		45.75 44.25
Referring Flag	Bomanelly Hill143 2	
	Savendroog 97 4	1 34.36
Bomanelly Hill	Savendroog 45 4	1 25.89
Referring Flag	Mysoor Hill	9 12.58
	Savendroog 97 4	1 34.36
Savendroog	Mysoor Hill 59 4	2 21.78
Referring Flag	· Bomanelly Hill · · · · · · · · 143 2	3 00.25
=	Daesauneegooda · · · · · · · 150 3	6 33.6
Bomanelly Hill	·· Daesauneegooda · · · · · · · 66 0	0 26.15
Referring Flag	·· Daesauneegooda · · · · · · · 150 3	6 33.6
1	Koondoor Hill 71 3	7 22.94
Daesauneegooda · · · · · · · · · · · · · · · · · · ·	·· Koondoor Hill · · · · · 78 5	9 10.66
Referring Flag	· Daesauneegooda · · · · · · 150 3	6 33.6
	Koondhully Hill · · · · · 55 3	8 44.68
Daesauneegooda · · · · · · · · · · · · · · · · · · ·	·· Koondhully Hill · · · · · 94 5	7 48.92
Hannabetta · · · · · · · · · · · · · · · · · ·	·· Koondhully Hill ····· 45 3	2 00.65
Hannabetta · · · · · · · · · · · · · · · · · ·	· Daesauneegooda · · · · · · 49 2	5 48.27
Referring Flag		
	Koondhully Hill 55 3	8 44.68
Koondoor Hill	··Koondhully Hill ····· 15 5	8 38.26
Hannabetta · · · · · · · · · · · · · · · · · ·	··Koondhully Hill ····· 45 3	2 00.65
Hannabetta	··Koondoor Hill ···· 29 3	3 22.39
Referring Flag	·· Koondhully Hiil · · · · · 55 3	8 44.68
•	Balroyndroog · · · · · 96 3	
Koondhully Hill	··Balroyndroog ······ 40 5	8 1.62
	porter months	

At Mullapunnabetta, continued.

Between And	
Referring LampPole-star's greatest W. elongation . 170°43' 15".25	
18	
18.37	
19.13	
19.38	
20	
19.62	
20	
19.25	
19.25	
170 43 49	
48.25	
48.13	
47.75	
49.25	
48.2	
48.5	
50.25	
* ************************************	
At Bundhully.	
Carrandynas Daniel - 112	
Savendroog 37 30 28.5	30'.12
31.75 Mysoor Hill 80 2 42.44	
45.94	44.19
10.343	
4	
At Cheetkul Hill.	
Savendroog ······ Devaroydroog ····· 134 49 45.13	
44.25	1510
$\begin{array}{c} 44.25 \ 44.25 \end{array}$	45.16
47	
At Mysoor Hill.	
110 14193007 11000	
Referring flag Bundhully Hill 55 26 46	
45.75 }	45.22
43.9	10.44
Savendroog 108 17 44 7	
43.75	
46	45.19
47	
** 5	

At Mysoor Hill, continued.

Between	And	
Referring Flag · · · · · · · · · · · · · · · · · · ·	· · · Mullapunnabetta · · · · · · ·	25.45
		27.89 28.5
		27 > 26".5
		$27.5 \mid 25.25 \mid$
		25.5
Referring Flag	Bundhully Hill	25.43 J •••• 55 26 45.22
	Savendroog	108 17 45.19
Bundhully Hill	· · · · Savendroog · · · · · · · · · · · · ·	52 50 59.97
Referring Flag		
	Mullapunnabetta	177 47 26.5
Savendroog · · · · · · · · · · · · · · · · · ·	···Mullapunnabetta ······	73 54 48.31
11 11	At Daesauneegooda.	
Mullapunnabetta · · · · · · · · · · · · · · · · · ·	0	69 10 25.387
1		26.5
	Hannabetta	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	Koondoor Hill	7.37
Hannahatta		93.37 24.93
IRMMADCHA***************	· · · Koondoor Hill · · · · · · ·	42 50 41.62 39.13 40.37
	At Koondoorbetta.	
Mullapunnabetta · · · · · · · · · · · · · · · · · ·	· · · Daesauneegooda · · · · · · · · · · · · · · · · · · ·	
		32.75 \ 31.17 31.75 \
	Hannabetta	119 34 16.25 16.25
Koondhully Hill		4 × 41/.2/0
	· · · · Balroyndroog · · · · · · · · · · · · · · · · · ·	
Mullapunnabetta	···· Balroyndroog ···· Hannabetta ···· ···	141 10 47 05
Ralmandraam		
manolim oog	···· Hannabetta · · · · · · · · · · · · · · · · · ·	21 36 31

At Koondoorbetta, continued.

Between Mullapunnabetta · · · · · · · · · · · · · · · · · ·	And Daesauneegooda 53° 57′ 31″.17 Hannabetta	
Daesauneegooda · · · · · · · · · · · · · · · · · · ·	Hannabetta 65 36 45 .08	
Mullapunnabetta · · · · · · Koondhully Hill · · · · · · · · ·	Balroyndroog	`
Mullapunnabetta	Koondhully Hill143 36 55 .38	
\	At Koondhully Hill.	
Koondoorbetta	Bettatipoor Hill	12'.08
Mullapunnabetta	••• Bettatipoor Hill ••• 57 53 42.5 $\left. \begin{array}{c} 41 \\ 42.5 \end{array} \right\}$	41.44
	39.75) Balroyndroog	22.25
Mullapunnabetta · · · · · · · · · · · · · · · · · ·	Bettatipoor Hill	
Mullapunnabetta	Koondoorbetta 20 24 30.64	
	At Hannabetta.	
Daesauneegooda · · · · · · · · · · · · · · · · · · ·	···Koondoorbetta ····· 71 32 35 }	35 -
Koondoorbetta····	Balroyndroog	17.37
	At Balroyndroog.	
Referring flag	Bullamully Hill	
	6.37 (3.75 (2.37 (4.41
	Koondhully Hill 88 44 51 54.5 }	52.75

At Balroyndroog, continued.

Between	And	0/ 10// =	
Referring Lamp.	·Pole-star's W. elongation ····· 56° 4	6′ 43″.5	
Referring Lamp,		43 . 75	
		43.25	
*			
		43	
		44.5	
		44.25	
		43.44	
	00.4		
Referring Flag	·Koondhully Hill ······ 88 4	1 52.75	
recienting 1 mg	Bullamully Hill · · · · · · · · 169 5	7 4.41	
	Danamany XIIII		
	D 11 11 11'11 01 11	2 11 66	45
Koondhully Hill	·Bullamully Hill · · · · · 81 1	2 11 .00	
· ·			
	4 75 11 11		
	At Bullamully.		
		6 90	
Koondhully Hill	·Balroyndroog · · · · · · 57	10 30	
		20.20	
		27.25	00// 40
		31.5	30".42
		31.75	
		32.75)	
D.1. 1	·Kunnoor Hill · · · · · · · · · 118		13.5.
Bairoyndroog	· Kulliloor IIIII	9 1575	
	Bullanaudgooda · · · · · 80 &	03 13.75	
~		22	19.19
		21.75	13.13
		17.25	*
	77.11	7 90 3	
Bullanaudgooda · · · · · · · · · · · · · · · · · · ·	· Goompay Hill · · · · · · 79	17 39	
8	,	43.13	42.17
		44.37	
44 7711	Trullangenehotte	4 44 173	
Goompay Hill	·Kuddapoonabetta · · · · · · 89	41.10	41 50
		ح 41.13	41.56
		39.38	
M: TTU	Wuddengenahetta 34 5	37 35.257	
Meelar Mili	·Kuddapoonabetta · · · · · · · · · 34 5	30.5	32.87
Balroyndroog · · · · · · · · · · · · · · · · · ·	·Mangalore · · · · · · · · · 123 J	1 21.15	
	4	25.5	25.92
i i		24.5	
Vunnaan Hill	·Balroyndroog · · · · · · · · · 118		
Kumoor Filli	Danuyharoug	70 10 10	
Bullanaudgooda	·Balroyndroog · · · · · · 80 &	3 19.19	
Kunnoor Hill	·Bullanaudgooda · · · · · · · · · 160	5 27.31	
	Goompay Hill 79		
	Goompay Imm. 19	42.17	
Goompay Hill	·Kunnoor Hill · · · · · · 81 9	27 45.14	
*	Kuddapoonabetta 89	4 41.56	
	2221111p	11100	
IZ II'll	17 . 11	10 70 10	
Kunnoor Hill	··Kuddapoonabetta ····· 7	16 56.42	
Balrovndroog	·Bullanaudgooda · · · · · 80 !	53 19 19	
Dunanauugooda	·Goompay Hill····· 79	1/42.1/	
	to appring the second s		

At Bullamully, continued.

*	at Danamany, continued.
Between	And
Balroyndroog · · · · · · · · · · · · · · · · · ·	Goompay Hill
	Mangalore123 11 25.92
Common Hill	Mangalore 76 37 32.72
Goompay Am · · · · · · · · · · · · · · · · · ·	··· Mangalore ···· 10 51 52.12
Balroyndroog · · · · · · · · · · · · · · · · · ·	· · · Kunnoor Hill · · · · · · · · · · 118 21 13.5
	· · · Kuddapoonabetta · · · · · · · · 7 46 56.42
	Section - International Section -
	···Balroyndroog ·······110 34 17.08
Meejar Hill · · · · · · · · · · · · · · · · · ·	· · · Kuddapoonabetta · · · · · · · · · 34 37 32.87
	Balroyndroog 75 56 44.21
	Dunbyharoog
	14 77
	At Ungargooda.
Balroyndroog	Bullamully Hill 91 20 62.257
	59.25 60'.75
	59.5
D1111 TY'11	62
Bullamully Hill	Meejar Hill126 11 27.5
	25.75 27.88
	28.
Meejar Hill	Booggargooda 28 59 12.757
_	$\frac{13}{2}$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	9
	6.25
•	
	At Booggargooda.
Dullamalla IIII	
bullamully fill	••• Meejar Hill •••••••• 113 5 40.75
	43.25 41
	4.4.
	45.75 \ 43.08
	44
	41
	44.75 J
	Ungargooda
	54
	55.75 > 55.5
	56.5
1511 11 . 77*11	53.75)
Bullamully Hill	Meejar Hill
	Ungargooda · · · · · · · · · 21 3 55.5
Meejar Hill · · · · · · · · · · · · · · · · · ·	Ungargooda134 9 38.58
3	00

At Meejar Hill.

Between	And .	Daggagada		37	201.627	
Bullamully Hill		• Dooggargooda ••	54°		17.88 1 7.5	18'.67
		Kuddapoonabetta	49	7	$52 \\ 52.25$	53.67
77 - 1 lan ah atta		•Kooliebogooda	37	55	56.75	
Kuddapoonabetta		· Koonebogooda			19.75 20.25	19.94
`					21.25	
		At Kuddapoon	abetta.			
Bullamully Hill			96		31. 25	31.37
			48		46.75 €	45.5
Kooliebogooda		· Meejar Hill · · · ·	58	24	55.25 57.75	56.62
					55 58.5	30.03
		Eedgah Station		11	30	32.08
		-			30.75)	
		At Kunnoor		0.4	01 053	
Bullamully Hill	• • • • • • • • • • • • •	• Kuddapoonabett	a · · · · · · · 123	34	21 .25	21.12

V. TRIANGLES.

	Bon	nairgottah from	n Saven	droog	107968	.7	
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
66	Bonnairgottah Savendroog Dodagoontah Stat ⁿ .		1	,		83° 20′ 15″.4 35 4 53 .8 61 34 50 .8 180 00 00	
		Dodagoontalı S	Station f			rgottah	

	S	avendroog from	Deorab	etta 1	59828.8	3.	,
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
67	Savendroog · · · · · · · Deorabetta · · · · · · Bundhully · · · · · ·	44° 41′ 40″.93 97 47 57.75 37 30 30.12 180 00 08.8	-4.0	6″.9	+1".9	44° 41′ 39″.5 97 47 52 37 30 28 .5 180 00 00	
		Bundhully from	Saven Deora		•••••		260072 184620.5
	Sav	rendroog from I	Nundydi	roog s	215226.	3.	
	Savendroog · · · · · · Nundydroog · · · · · · Devaroydroog · · · · ·	50 14 6.37 49 53 53.48 79 52 8.45	-1.9 -1.9 -2.8			50 14 4.3 49 53 51.6 79 52 4.1	
68		180 00 8.3	-	6.54	+1.76	180 00 00	
		Devaroydroog f	rom {	wend	roog ···		167233.7 168058.8
	S	Savendroog f r on	n Deora	betta	159828.	8.	
	Savendroog Deorabetta Allasoor Hill	78 57 47.5 47 20 38.73 53 41 39.59	-2.26 -1.55 -1.69			78 57 45.1 47 20 37 53 41 37.9	
69		180 00 05.82		5.4	+0.42	180 00 00	
	Allasoor Hill from						14585 9. 1 194662.8

TRIANGLES—continued.

	Savendroog from Allasoor Hill 145859.1						
No.	TRIANGLES.	Obsd. Augles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
70	Savendroog Allasoor Hill Cheetkul Hill	55° 41′ 34″.92 62 10 43.71 62 7 47.87	-1.4			55'41' 32".8 62 10 41 .5 62 7 45 .7	
		180 00 06.5		4".2	+2".3	180 00 00	-
Cheetkul Hill from Savendroog							
	Sa	vendroog from	Cheetku	l Hill	145924	4.8	
P7.1	Savendroog Cheetkul Hill Devaroydroog	6 56 13.43 134 49 45.16 38 14 4.75				6 56 12.5 134 49 42.5 38 14 5	
71		180 00 3.34		0.7	+2.64	180 00 00	
	Devaroydroog from Savendroog						
	Sav	endroog from 1	Devaroye	lroog	167229	.25	
72	Savendroog Devaroydroog Bomanelly Hill		-2.1 -4.1			51 25 00 89 33 40 39 1 20	
, 2						180 00 00	
	Bomanelly Hill from Savendroog						

	Sav	endroog from I	Bomanell	y Hi	ll 26559	04.9	
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Execss.	Error.	Angles for Calculation.	Distance in feet.
73	Savendroog Bomanelly Hill Mullapunnabetta		 7.5			28° 48′ 0 ″.4 105 30 33 .6 45 41 26	
13		180 00 9 .3		10″.8	-1".5	180 00 00	
		Mullapunnabett	a from	₹	_	Hill	357646.2 178809.7
	Sar	vendroog from	Bundhul	ly H	ill 2600	72	
7.1	Savendroog Bundhully Mysoor Hill		-6.2			47 6 29.5 80 2 38 52 50 52.5	
1 T	•	180 00 17.84		14.5	+3.34	180 00 00	
		Mysoor Hill	from 🖁			•••••••	321385.4 239060
	Se	avendroog from	Mysoor	Hill	321385	5.4	
75	Savendroog Mysoor Hill Mullapunnabetta	46 23 6.26 73 54 48.31 59 42 21.78	-7.7			46 23 00.5 73 54 44 59 42 15.5	
15		180 00 16.35		19.7	-3.35	180 00 00	
	- `	Mullapunnabet	ta from ·	₹		1	357641.2 269475.6

	Sa	vendroog from	Mullapu	nnabe	tta 3570	641.2				
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.			
76	Savendroog Mullapunnabetta Bomanelly Hill	28° 48′ 2″.35 45 41 25 .37 105 30 41 .06 180 00 8.78	-1.3 -7.5	:0"8	-2".02	28° 48′ 00″.4 45 41 26 105 30 33 .6				
	Bomanelly Hill from Savendroog									
Savendroog from Mullapunnabetta 357641.2										
	Savendroog Station Mullapunnabetta · · Mysoor Hill · · · · ·	46 23 6.26 59 42 21.78 73 54 48.31				46 23 0.5 59 42 15.5 73 54 44				
77		180 00 16.35		19.7	-3.35	180 00 00				
	Mysoor Hill from Savendroog Station									
	Mullapunnabetta from Bomanelly 178807.7									
	Mullapunnabetta •• Bomanelly Hill•••• D.:esauneegooda ••	66 00 26.15 44 49 14.67 69 10 25.94	-1.5			66 0 23.8 44 49 12.7 69 10 23.5				
78		180 00 06.76		5.2	+1.56	180 00 00				
	Daesauncegooda from Mullapunnabetta Bomanelly Hill									

TRIANGLES-continued.

Mullapunnabetta from Daesauneegooda 134849.9											
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in fect.				
	Mullapunnabetta · · Daesauneegooda · · Hannabetta · · · · ·		-1".25 -2 .37			49° 25′ 47″ 89 54 3.6 40 40 90.4					
7 9						180 00 00					
6	Hannabetta from Daesauneegooda										
Mullapunnabetta from Hannabetta 206922.5											
	Mullapunnabetta · · · · · · · · · · · · · · · · · Koondoor Hill · · · · · ·	29 33 22.39 119 34 16.25	0.02 2.89			29 33 22.4 30 52 24.2 119 34 13.4					
80						180 00 00					
	Koondoor Hill from Mullapunnabetta										
Mullapunnabetta from Daesauneegooda 134849.9											
	Mullapuunabetta •• Daesauneegooda •• Koondoor Hill••••		-1 .6 -1 .1 -1 .1			78 59 9.1 47 3 22.3 53 57 28.6					
81		180 0 6.76		3″.8	+2".96	180 00 00					
	Koondoor Hill from Mullapunnabetta Daesauneegooda										

TRIANGLES-CONTINUED.

	Daesauneegooda from Hannabetta 157180.4								
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.		
82	Daesauneegooda · · · Hannabetta · · · · · · Koondoor Hill · · · ·	42° 50′ 40″.37 71 32 35.00 65 36 45.08 	-1 .5 -1 .4	4".1		42° 50′ 40″,4 71 32 34.7 65 36 44.9			
	Koondoor Hill from Dacsauneegooda								
	На	nnabetta from 1	Koondoo	rbette	11735	5.7			
	Hannabetta · · · · · Koondoorbetta · · · · · Balroyndroog · · · ·	136 19 17.37 21 36 31	-3.96 +0.85			136 19 13.4 21 36 31.9 22 4 14.7			
83						180 00 00			
		Balreyndroog f	rom 🖯 📉	annal o o nde			115016 215698		
	Mulla	punnabetta fron	n Koond	oor b e	tta 1220	081.4			
	Mullapunnabetta · · · Koondoorbetta · · · · Koondhully Hill · ·	143 36 55.38	+1.07 -4.22 +1.50			15 58 39 143 36 50 20 24 31			
84		180 00 04.28		1.65	+2.63	180 00 00			
Koondhully from { Mullapunabetta									

The side Mullapunnabetta from Koondoorbetta is the mean distance had from the 80th and 81st triangle.

ACCOUNT OF TRIGONOMETRICAL

TRIANGLES—continued.

Koondoorbetta from Koondhully Hill 96366.3								
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.	
85	Koondoorbetta Koondhully Hill Balroyndroog		1".7			75° 12′ 15″.67 78 48 9 .73 25 59 34 .6		
00						180 00 00		
$ ext{Balroyndroog from} egin{cases} ext{Koondoorbetta} & $								
	Koone	loorbetta from I	Mullapu	nnabe	tta 122	081.4		
	Koondoorbetta Mullapunnabetta Balroyndroog	141 10 47.25	9.41			141 10 37.8 24 59 21.75 13 50 00.45		
86		_				180 00 00 00		
		Balroyndroog f	$rom \{ -$			tta		
	Mullap	unnabetta from	Koondl	iully .	Hill 20'	7682.8		
87	Mullapunnabetta Koondhully Balroyndroog	40 58 01.62 99 12 22.25				40 57 59.5 99 12 16.2 39 49 44.3		
₩ /						180 00 00 .00		
$\begin{array}{c} \text{Balroyndroog from} \left\{ \begin{array}{c} \text{Mullapunnabetta} \dots & 3 \\ \text{Koondhully Hill} & \dots & 2 \end{array} \right. \end{array}$								

TRIANGLES-CONTINUED.

	Koondhully Hill from Balroyndroog 212588.5								
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.		
88	Koondhully Hill Balroyndroog Bullamully	81° 12′ 11″.66 57 46 30 .42	-3.5 -2.4			41 01' 23".8 81 12 8.2 57 46 28			
		•				180 00 00			
Bullamully from { Koondhully Hill									

The side Koondhully hill from Balroyndroog is the mean distance found in the 85th and 87th triangle.

	Ba	droyndroog	fro	m Bulla	mully	16494	4.6		
89	Balroyndroog Bullamully Ungargooda	59 54 19 91 21 00	37.9 37.0	0.6 0.4			59 54	41.5 19.2 0 59.3	
		Ungargood	la fro	m {		lroog .			142749.3 79345.5

The supplemental chord angle at *Bullamully*, between *Meejar* hill and *Ungargooda*, corrected, is subtracted from the observed angle between *Balroyndroog* and *Meejar* hill, to get the angle at *Bullamully*, between *Balroyndroog* and *Ungargooda*, as an observed one.

TRIANGLES-CONTINUED.

Bullamully from Ungargooda 79345.5							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
90	Bullamully Ungargooda Meejar Station	1260 11' 27".88	-0".7 +0.2			16° 02′ 24″.8 126 11 27 .2 37 46 08 180 00 00 00	
	Med	ejar Station fron	n₹	· ·			104550.2 35795.8

At Meejar hill, the supplemental chord angle between Booggargooda and Ungargooda, corrected as an observed one, and subtracted from the observed angle between Booggargooda and Bullamully, gives the angle between Bullamully and Ungargooda as an observed angle.

	Bu	llamully from	Meejar Sta	ation 10455	0.2				
	Bullamully Mecjar Station Kudapoonabetta	49 07 53.67 96 14 31.37	$\begin{vmatrix} -0.27 \\ -0.58 \\ - \end{vmatrix}$		34 37 33.75 49 07 54.5 96 14 31.75				
.91		179 59 57.91	1.	-3.2	180 00 00				
Kudapoonabetta from Bullamully									
		Bullamully fro	m Kudap	oonabetta 7	9536				
	Bullamully Kudapoonabetta Kunnoor Station	7 46 56.42 48 38 45.5 123 34 21.12	-0.02 +0.17 -0.33		7 46 55.5 48 38 44.7 123 34 19.8				
92		180 00 03.04	0	18 +2.86	180 00 00 00				
Kunnoor Station from Bullamully									

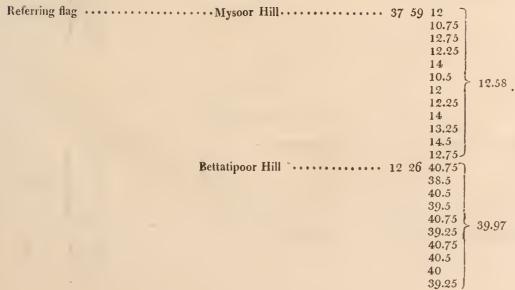
SECTION. III.

Southern series of triangles, commencing from Mullapunnabetta and Mysour hill, and continued to the Malabar coast, terminating with the distance from Bullamully to Kunnoor station, which is also brought out by the northern series.

VI. ANGLES.

At Mysoor Hill.

Between Referring Flag · · · · · · · · · · · · · · · · · · ·	And Mullapunnabetta		177° 47	′ 26″ ⊃	
			-11 -1	25.45	
				27.89	
			-	28.5	26".50
				27.5	20.50
				25.25	
				25.5	
	Bettatinger Hill		136 06	25.43 J 58.65	
	Bettutipoor 11m		100 00	F 77 40	6 P O I
				56.25	57.01
Referring flag,	. Mullanunnahatta		100 40	55.73	
	Bettatipoor Hill				
Mullapunnabetta · · · · · · · · · · · · · · · · · ·	Bettatipoor Hill	• • • • • • • • • • • • • • • • • • • •	41 40	29.49	
	-				
	At Mullapunn	abetta.			
Referring flag	Mysoor Hill.		37 50	12	



At Mullapunnabetta, continued.

Between Referring flag	And Soobramanee	59°	05′	03″.25入	
			(07 .5 5.75	~ E''I
				6.75	. 00.*
				8	
Referring flag					
	Bettatipoor Hill · · · · · · · · · · · · · · · · · ·	12	26	39.97	
Mysoor Hill •	·····Bettatipoor Hill ·····	50	25	52.55	
Referring flag	·····Soobramanee	59	5	06	
resetting mag	Bettatipoor Hill	12	26	39.97	
Bettatipoor Hi	ll ······Soobramanee ·····	46	38	26.03	
	•				

At Bettatipoor Hill.

Mullapunnabe	Soobramanee 87 53 Taddiandamole 51 37	46 50.75 48.67
	Soobramanee · · · · · · · · · 83 35	12.75
		9 11.55 11.5
Soobramanee	Taddiandamole 51 37	49.75 52.25 54.75
		49.5 53.75

At Taddiandamole.

Beltatipoor Hill · · · · · Soobramanee · · · · · · ·	54 50 32.25 30.5
~	32.75
	$ \begin{array}{c c} 32.5 \\ 29.75 \\ 32 \end{array} $
	28.25
Soobramanee	23.5
	19.25 22.1 22.5
	21.75

At Mount Dilli.

Between Kunduddakamully		
	Munjuimpuddy · · · · · · · · · · · · · · · · · ·	9.33

At Kunduddakamully.

Goompay Hill · · · · · · · · · · · · · · · · · ·	Annantanoor Hill	. 15 56	12	
Goompay 11m	·Annantapool IIIII · · · · · · · · · · · · · · · ·	10 00	10.25	
			11 .5	10.69
			9	
Baekul	· Annantapoor Hill · · · · · · · · ·	$\cdot \cdot 37 \ 41$	43	
			43.5	43.25
			43 .25	
Goompay Hill	· Ballanandgooda · · · · · · · · · · · · · · · · · · ·	.26 14	38 .25	
Croompay 11m		20 11	41 .25	
			36	20.25
				39.35
			40.25	
			41 J	
	Taddiandamole	151 2	30	0=
			24	27
Munjuimpuddy	· Baekul · · · · · · · · · · · · · · · · · · ·	. 25 44	28 .25 5	
Tittigampa (a)		~ • • • •	28	29.75
			33	29.70
Comment III	Aumautanaan	7 P P C		
Goompay Hill				
Taddiandamole	· Goompay Hill · · · · · · · · · · · · · · · · · ·	151 2	27	
Annantapoor	·Taddiaudamole · · · · · · · · · · · · · · · · · · ·	166 58	37 .69	
· · · · · · · · · · · · · · · · · · ·	Baekul	37 41	43 .25	
Baekul · · · · · · · · · · · · · · · · · · ·	.Taddiandamole	155 10	30 06	
Backui	Taddianalinoic ************************************	133 19	39.00	
Annantapoor · · · · · · · · · · · · · · · · · ·	Paglari	0.77 4.4	40.05	
Goompay Hill · · · · · · · · · · · · · · · · · ·	· Annantapoor · · · · · · · · · · · · · · · · · ·	15 56	10.69	
Baekul·····	· Goompay · · · · · · · · · · · · · · · · · · ·	53 37	53.94	
	•			
Taddiandamole	·Baekul · · · · · · · · · · · · · · · · · · ·	155 10	39.06	
Baekul · · · · · · · · · · · · · · · · · · ·				
Duchut	Languinpitati	20 44	29.13	
Maniatana dalar	Toddiondonale	100 01	2 24	
Munjuimpuddy	· 1 addiandamole · · · · · · · · · · · · · · · · · · ·	129 35	9.31	
		-		

At Baekul.

Between	And	
Munjuimpuddy		
	57 .75 \ 57".67 58 .5	
	Kunduddakamully 32 31 59.75 61.37	
Goompay Hill	63 5 01.57 Annantapoor	
Goompay 11m ****	60.75 69.58	
C	62)	
Goompay Hill ····	•••••• Sunduddakamully •••• 92 36 56 .25	
	55.25	
Muniuimpuddy	55.25)	
naugumpaaay ••	Kunduddakamully · · · · · 32 32 01 .37	
Mount Dilli · · · · ·		
	Management of programming of program	
	At Manisimpuddy III	
	At Munjuimpuddy Hill.	
Kunduddakamully		
	10.5	
	8.5	
	At Annantapoor Hill.	
Goompay Hill	Kunduddakamully 107 11 12.5	
	16 .25 \ 14.67	
	17.25)	
	At Goompay Hill.	
Dullana I al		
Ballananagooda · ·	Bullamully	
	14 (14.94)	
	16) Annantapoor140 37 3.75	
	4.75	
	6.5	
	Xunnoor Station	
	50 \ 48.25	
Ballanandgooda	Bullamully 35 9 14 .94	
<u> </u>	Кыпоог Station 93 6 48.25	
Bullamully	Kunnoor Station 57 57 33 .31	
	7 57 57 33 .31	

At Bullamully.

Between	And	
Ballanandgooda	Goompay Hill 79° 17 39"	
	43.13	42".17
	Goompay Hill 79° 17 39" 43 .13 44 .37 Balroyndroog 80 53 15.75 22 21 .75 17 .25	•
	22	10.10
	21.75	1,501,5
Ralrovudroog	17.23 J	
Balroyndroog · ·	Ballanandgooda 80 53 19 .19	
bahahanagoona		
Goompay Hill	Kunnoor Station 81 27 45 .14	
- 0	Quantitative and a second property of the sec	

VII. TRIANGLES.

		VII.	TRIAN	GLE	2S.					
Mullapunnabetta from Mysoor Hill 269477.5										
No.	TRIANGLES. Obsd. Angles. Distance in fect.									
	Mullapunnabetta · · Mysoor Hill · · · · · · Bettatipoor Hill · ·	41 40 29 .49	-2.3			50° 25′ 41 40 87 53	26.6			
93		180 00 10.71		8'.8	+1".91	180 00	00			
	Bet	tatipoor Hill fro	om 🖯	•				179294.4 207867.4		
	Mulla	punnabetta fron	Bettati	ipoor	Hill 17	9294.4				
	Mullapuunabetta · · · Bettatipoor Hill · · · Soobramanee · · · · ·	46 38 26.03 *83 35 11.26	-1.98 -3.23			46 38 83 35 49 46	8			
94				- ,		180 00	00			
Soobramanee from \{ \begin{align*} \text{Mullapunnabetta} \cdots \cdots 233359.7 \\ \text{Bettatipoor Hill} \cdots \cdots 170734 \end{align*}										

TRIANGLES-CONTINUED.

- Australia	Bettatipoor Hill from Soobramanee 170734								
No.	TRIANGLES. Obsd. Angles. Difference. Spherical Excess. Angles for Calculation.								
95	Bettatipoor Hill Soobramanee Taddiandamole		—1".9 —1 .96			51° 37′ 50″.1 73 31 40.7 54 50 29.2			
					-	180 00 00 00			
		Taddiandamo	le from	₹	•	Hillee Hill	200262.3		
	Soobra	manee Hill fro	m Tadd	ianda	mole 16	3730.4			
96	Soobramanee Hill Taddiandamole Kunduddakamully 56 11 14 .75 — 1.71 180 00 00								
Kunduddakamully from { Soobramanee Hill									

The supplemental chord angle at Taddiandamole, between Kunduddak-amully and Mount Dilli, reduced as an observed one, is subtracted from the angle Soobramanee hill and Mount Dilli, as observed at Taddiandamole, to give the angle Kunddudakamully and Soobramanee hill. The station at Kunduddakamully could not be seen when the angles were taken at Taddiandamole,

Tuddiandamole from Kunduddakamully 149160.2								
Taddiandamole Kunduddakamully Mount Dilli	69 18 26 .71 —1 .61 60 21 28 .08 —1 .44	50 20 8.26 69 18 25.10 60 21 26.64						
	Mount Dilli from	diandamole						

The supplemental chord angle at Kunduddakamully, between Mount Dilli and Munjuimpuddy, made as an observed angle by applying the correction, and subtracted from the observed angle between Munjuimpuddy and Taddiandamole, gives the angle Mount Dilli and Taddiandamole as an observed angle.

TRIANGLES-CONTINUED.

	Kunduddakamully from Mount Dilli 132113									
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.			
98	Kunduddakamully Mount Dilli Baekul	86° 01′ 12″.35 65 09 59 .04				86° 01′ 11″.35 28 48 50 .21 65 09 58 .44 180 00 00 00	-			
	Baekul from Kunduddakamully									

In this triangle the same supplemental chord angle between *Mount Dilli* and *Munjuimpuddy*, corrected, is added to the observed angle at *Kundudda-kamully*, between *Backul* and *Munjuimpuddy*, to get the observed angle between *Mount Dilli* and *Backul*.

	-	Kun	duddakamu	lly from	Baek	ul 7016	52		
99	Kunduddakamu Baekul · · · · · · · Goompay Hill ·	11y 5:	3 37 53.94 2 36 55.58	-0 .4 -0 .9				53.54 54.68 11.78	
		Goom	pay Hill fro	m₹				- 1	126145.9 101681.2

TRIANGLES-continued.

Kunduddakamully from Goompay Hill 126145.9									
No. TRIANGLES.	Obsd. Augles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.			
Kunduddakamully Goompay Hill Ballanandgooda	83 44 30.21				26° 14′ 38′.75 83 44 29 .5 70 00 51 .75				
100					180 00 00				
Ва	Ballanandgooda from Kunduddakamully								
Go	ompay Hill from	Ballan	andgo	oda 593	55.8				
Goompay Hill Ballanandgooda . Bullamully					35 09 14.8 65 33 02.7 79 17 42.5				
101					180 00 00 00				
	Bullamully fro	m ₹			•••••				
	Goompay Hill fr	om Bull	amullį	, 54990	.2				
Goompay Hill Bullamully Kunnoor Station	81 27 45.14				57 57 33 81 27 44.75 40 34 42.25				
102					180 00 00.00				
Ku	nnoor Station fro	m ∤	• •		••••••	8360 0. 1 71659.4			

The same side Bullamully from Kunnoor hill brought out down from the northern series is 71655.7 feet: therefore the mean will be 71657.55 feet. Hence, as the side Bullamully from Kunnoor hill, brought down from the northern series, is the mean, so is the side Meejar hill and Kuddapoonabetta, brought down from the northern series, to 59764.6 feet, as derived from the mean of both series.

TRIANGLES-CONTINUED.

	Meejar Hill from Kudapoonabetta 59764.6								
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.		
103	Meejar Hill Kudapoonabetta Kooliebogooda	58 24 56 .62				37° 55′ 19′.8 58 24 56 .5 83 39 43 .7 180 00 00 00	0		
Kooliebogooda from { Meejar Hill									

SECONDARY TRIANGLES.

	Kudapo	onabetta from Ke	poliebogooda 36956.5								
No.	TRIANGLES.	Obsd. Angles.	Distances from the intersected Objects in Feet.								
	Kudapoonabetta · · Kooliebogooda · · Eedgah Station · ·	86° 11′ 32′ 25 28 59 68 19 19	} Eedgah Station { 17110.2 39680.7								
	Eedgah Station from Kooliebogooda 39680.7										
	Eedgah Station · · Kooliebogooda · · Station on the Beach	66 09 43 14 30 24 99 19 53	Station on the Beach { 10073 36782.3								
	Bulla	mully from Goor	npay Hill 54990.2								
	Bullamully Goompay Hill Mangalore	76 37 33 69 16 59 34 05 28	Mangalore { 91763.7 95446.7								
	Bullan	nully from Kunn	oor Station 71659.4								
	Bullamully · · · · Kunnoor Station · · Mangalore · · · ·	4 50 12 158 37 57 16 31 51	Mangalore { 91761.4 21234.9								
	Mount .	Dilli from Kund	uddakamully 132113								
	Mount Dilli Kunduddakamully Cannanore	132 10 39 18 46 24 29 02 57	Cannanore \ \ \ \ 87563.4 \ 201632.7								
	Taddie	undamole from N	Jount Dilli 160548.9								
	Taddiandamole · · Mount Dilli · · · · · · Cannanore · · · · ·	31 59 09 71 49 11 76 11 40	Cannanore { 157072 87574.2								
	Tadd	liandamole from	Cannanore 157072								
-	Taddiandamole Cannanore Station in Redoubt	16 51 05 98 16 45 64 52 10	} Station in Redoubt { \begin{align*} 171686.4 \\ 50294.4 \end{align*}								
	Taddianda	amole from Static	on in Redoubt 171686.4								
	Taddiandamole Station in Redoubt Tellicherry	1 29 26 132 52 33 46 38 01	Tellicherry { 175846.6 6143.1								

SECTION IV.

Latitude of Dodagoontal Station, with the position of its Meridian.

Dodagoontah station is selected as the point of departure in preference to the observatory at *Madras*, as it is nearly in the middle of the *Peninsula*, and its meridian is intended to be carried down to *Cape Comorin*. It has already been extended below the latitude of 11°, and the series of triangles from which it is deduced, being to form the foundation of all the branches which may hereafter be carried to each coast, I have considered it as the properest meridian to which all latitudes and relative longitudes should be referred.

8. Zenith distances of stars observed at *Dodagoontah*, with their corrections for precession, nutation, aberration, and the semi-annual solar equation, back to the beginning of the year 1805, for determining the latitude of that station.

OBSERVATIONS AT DODAGOONTAII. « SERPENTIS.

NEAREST POINT ON THE LIMB 5° 55' S.

Correc-1805. Face. Thermometers. Obsd. Zenith Correct Zenith Distances. Distances. Month. Upper. Lower. 70° 70" July 10. E. 5° 57′ 04".49 7".14 5° 56′ 57″.35 12. W. 73 5 56 59.38 5 56 52.45 73 6.93 15. E. 79.5 5 57 07.74 6.64 5 57 01.10 79 W. 78 18. 5 56 54.73 6.36 5 56 48.37 78 19. E. 76 76 5 57 9.64 6.26 5 57 3.38 24. W. 5 56 59.24 5.82 5 56 53.43 79.5 79 26. E. 5 57 05.74 5 57 00.08 75.5 75 5.66 27. W. 79 5 56 52.13 5.58 5 56 46 .55 79 29. Ε. 5 56 59.41 5 56 53.98 72 72 5.43 75.5 31. W. 5 56 52.73 5 56 47 45 76 5.28 1806, June 19. E. 5 55 16.76 19.08 5 56 57.68 73 73 20. W. 72 72 5 56 10.88 18.95 5 56 51.93 22. W. 5 56 07.38 18.70 5 56 48.68 76 76 23. E. 5 56 13.21 18.57 5 56 54.64 73 73 75.1 Mean · · · · 75.1

 α HERCULIS. Nearest point on the limb 1° 35′ N.

1805.	Face.	Obsd. Zenith	Correction.	Correct Zenith	Thermo	ometers.	
Month.	Fa	Distance.	Cor	Distance.	Upper.	Lower.	
July 12.	E.	1° 37′ 19′.83	+ 0".39	1° 37′ 20″.22	68°	69°	
16. 19. 28. 29. 31. August 2. 7. 8. 9. 10. 12. 14.	E. W.	1 37 20.53 1 37 37.14 1 37 35.88 1 37 22.55 1 37 23.16 1 37 35.26 1 37 24.76 1 37 36.89 1 37 25.56 1 37 36.79 1 37 24.76 1 37 37.87 1 37 27.06	0.27 0.73 2.03 2.16 2.42 2.66 3.26 3.37 3.48 3.58 3.78 3.98 4.17	1 37 20.26 1 37 36.41 1 37 33.85 1 37 20.39 1 37 20.74 1 37 32.60 1 37 21.50 1 37 33.52 1 37 22.08 1 37 33.21 1 37 20.98 1 37 33.89 1 37 22.89 Mean	72.5 75 74 76 69 77.5 71.5 71.5 74 74 74 71.5	73 76 74 76 68.5 77.5 72 71 71 73 74 74 71	
						1	

 α OPHIUCHI. Nearest point on the limb 0° 15′ S.

				1 +			
July	12.	E.	0 17 14 .49	0.29	0 17 14.78	69	70
	13.	W.	0 17 03.10	0.46	0 17 03.36	71	72
	15.	E.	0 17 13 .54	0.77	0 17 14.31	71	71.5
	19.	E.	0 17 11.60	1.43	0 17 13.03	75	75
	22.	W.	0 16 59.10	1.89	0 17 00.99	74	74
	28.	E.	0 17 10.74	2.76	0 17 13.50	74	74
	29.	W.	0 16 57 .63	2.89	0 17 00.52	76.5	76
,	30.	E.	0 17 09 .24	3.02	0 17 12.26	77	77
	31.	W.	0 16 58 .93	3.15	0 17 02.08	69.5	69
August	7.	E.	0 17 08.51	4.02	0 17 12.53	72	72
9	8.	W.	0 16 57.24	4.14	0 17 01 .38	71	71
	9.	E.	0 17 09 .08	4.25	0 17 13.33	71	71
	10.	W.	0 16 57.76	4.36	0 17 02.12	73	73
	12.	E.	0 17 07.54	4.58	0 17 12.12	73	73
	14.	W.	0 16 55.13	4.78	0 16 59 .91	74	74
	17.	E.	0 17 8.74	5.07	0 17 13.81	72.5	72.5
		-			Mean····	72.7	72.8

, AQUILÆ.

NEAREST POINT ON THE LIMB 2° 50′ S.

1805.	Face.	Observed Zenith	rrec-	Correct Zenith	Thermo	meter.
Month.	Fa	Distance.	Correct Zenit Distance.		Upper.	Lower.
July 12. 13. 15. 16. 19. 22.	E. W. E. W. E. W.	2° 50′ 55″.13 2 50 42.80 2 50 51.50 2 50 42.50 2 50 55.50 2 50 37.40	+ 7".96 8.17 8.57 8.77 9.36 9.94	2° 51′ 03″.09 2 50 50 .97 2 51 0.07 2 50 51 .27 2 51 4.86 2 50 47 .34	67°.5 70 69 70 74 73 69	68° 70 70 71 73 72.5
August 7. 8. 9. 10. 12. 13. 17. 20. 30.	W. E. W. E. W. E. W. E. W.	2 50 50 .40 2 50 39 .40 2 50 46 .13 2 50 40 .75 2 50 49 .50 2 50 38 .33 2 50 48 .63 2 50 38 .30 2 50 49 .00 2 50 38 .20	11.58 12.76 12.92 13.08 13.24 13.55 13.70 14.27 14.70	2 51 1.98 2 50 52.16 2 50 59.05 2 50 53.83 2 51 2.74 2 50 51.88 2 51 2.33 2 50 52.57 2 51 3.70 2 50 54.11	70 69. 5 70 70 73 70 72 70 72	70 70 70 70 72 70 72 70 72
				Mean····	70.6	70.6

ATAIR.

NEAREST POINT ON THE LIMB 4 35 S.

-						
July 12. 13. 15. 16. 19. 22. 29. 30. 31. August 7. 8. 9. 10. 12. 13. 17. 20.	E. W. E.	4 37 55.62 4 37 42.39 4 37 56.47 4 37 43.39 4 37 56.14 4 37 42.01 4 37 53.89 4 37 40.39 4 37 40.96 4 37 48.37 4 37 41.89 4 37 48.37 4 37 48.37 4 37 48.37 4 37 48.37 4 37 48.37	+ 8 .49 8 .68 9 .07 9 .26 9 .83 10 .41 11 .65 11 .82 11 .99 13 .13 13 .28 13 .44 13 .59 13 .89 14 .04 14 .60 14 .99	4 38 04.11 4 37 51.07 4 38 05.54 4 37 52.65 4 38 5.97 4 37 52.42 4 38 5.54 4 37 52.21 4 38 3.83 4 37 54.09 4 38 01.66 4 37 55.33 4 37 53.65 4 38 2.21 4 37 53.65 4 38 2.21	67.5 70 69 70 73 73 74.5 76 69 71 69.5 70 70 73 70	68 70 70 71 72.5 73 74.5 76 69 71 70 70 70 72 70 72
		4 37 49.37	1		72 70 72	
	٠	5 7 -		Mean····	71.1	71.2

 β AQUILÆ. NEAREST POINT ON THE LIMB 7° 5′ S.

1806.	Face.	Observed Zenith	Correc- tion.	Correct Zenith	Thermometer.		
Month.	F	Distance.	್ರಿ. =	Distance.	Upper.	Lower.	
August 2.	6. W.	7° 03′ 38″.62 7 03 29 .87 7 03 40 .87	26.37	7° 4′ 4″.89 7 3 56.24 7 4 7.34	76° 72 71	76° 73 71	
				Mean····	73	73.3	

ARCTURUS.

NEAREST POINT ON THE LIMB 7 10 N.

1805. July 11. 13. 16. 22. 26.	W. E. W. E. W.	7 12 12.43 7 11 58.13 7 12 11.36 7 11 59.98 7 12 13.26	+ 7.50 7.36 7.16 6.85 6.60	7 12 19.93 7 12 65.49 7 12 18.52 7 12 6.83 7 12 19.95	74 .5 74 77 80 84	74.5 74.5 77 79.5 83		
	Mean····							

MARKAB.

NEAREST POINT ON THE LIMB 1 10 N.

August 13. 14. 17. 21. 23. 28. 29. 30.	E. W. E. W. W. E. W.	1 1 1 1 1 1 1	9 10 9 10 10 10 10	50.40 5.30 55.00 5.30 06.00 4.40 00.00 6.50	22.11 22.32 22.93 23.72 24.09 24.98 25.18 25.35	1 1 1 1 1 1 1	9 28 .28 9 42 .98 9 32 .07 9 41 .58 9 41 .91 9 39 .42 9 34 .82 9 41 .15	68 69 69 68 72 68 72 71	68 70 70 69 72 69 72 71
							$\mathrm{Mean} \! \cdots \! .$	69.6	70.1
							-	-	

, PEGASI. Nearest point on the limb 1 5 N_{\ast}^{1}

August 22. 23. 27. 30.	E. W. E. W.	1 1 1	6 21.26 6 31.63 6 23.50 6 35.13	24 .42 24 .93	1 1 1 1	5 57 .22 6 07 .21 5 58 .56 6 09 .69	68 70 68 68	69 71 69 70
						Mean····	68.5	69.8

Means of the Zenith Distances taken on the right and left Arcs, corrected for refraction, equation of the sectorial tube, and the mean runs of the Micrometer.

Previous to this arrangement of the zenith distances it may be proper to say a few words on the different corrections here mentioned.

The refraction is had from the tables of mean refraction, and no notice taken of the barometer or thermometer, or of the heights of the stations above the level of the sea, considering it doubtful what corrections to apply until observations are made, and tables of refraction constructed, for this climate, and for different elevations.

The corrections for the micrometer were determined by taking the runs between every dot on the arc when the mean temperature was 74°, it having been discovered upon more minute attention, that one degree on the limb was more than 3600 divisions marked seconds on the micrometer; and the average of all the results gave 3604. Therefore one minute counted by that scale required a deduction of 0″.066 to give its true measure from the nearest dot. In all these observations two thermometers were used, one opposite the upper axis, the other opposite the arc, and the experiments for ascertaining the runs were made when the thermometers stood at the same degree.

This error in the scale of the micrometer has doubtless arisen in a great measure from the unequal expansion of the sectorial tube and the frame which carries it, whereby the point of the screw does not coincide with the centre of the steel plate against which it presses, and in consequence causes a greater equation than what would arise simply from the expansion of the arc

while the point rested on the centre of the plate. Exclusive of the above correction, I have endeavoured to make some allowance for the variation of temperature from 74°, but I have found it too trifling to be noticed.

The correction for the sectorial tube, is a small equation which arises when the temperature above is different from that below; on which account the expansion and contraction of the tube are not in the same ratio with those of the arc. This irregularity, like the last, is in general very inconsiderable, though the correction for it is taken into account.

ZENITH DISTANCES at Dodagoontal, arranged and finally corrected.

a SERPENTIS.

1805. Month.	Left Arc.	1805.	Right Arc.	Mean.
July 10. 15. 19. 26. 29. 1806. June } 19. 23.	5 56 54.64	July 12. 18. 24. 27. 31. 1806. June 20. 22.	5 56 48 .37 5 56 53 .42	Mean5° 56′ 53″.82 Refraction, &c + 5.82 Zenith Distances 5 56 59.64

α HERCULIS.

1805. Month.	Left Arc.	Montb. Right Arc.			van.			
July 19. 28. August 2. 8. 10. 14.	1° 37′ 36″.41 1 37′ 33 .85 1 37′ 32 .60 1 37′ 33 .52 1 37′ 33 .21 1 37′ 33 .89	July 12. 16. 29. 31. August 7. 9. 12. 16.	1° 37′ 20″.22 1 37 20.26 1 37 20.39 1 37 20.74 1 37 21.50 1 37 22.08 1 37 20.98 1 37 22.89	Mean	+ 1.47			
Mean····	1 37 33.91	Mean····	1 37 21.13					

α OPHIUCHI.

July 12. 15. 19. 28. 30. August 7. 9. 12.	0 17 14.78 0 17 14.31 0 17 13.03 0 17 13.5 0 17 12.26 0 17 12.53 0 17 13.33 0 17 12.12 0 17 13.81	July 13. 22. 29. 31. August 8. ,10. 14.		Mean 0 17 7.40 Refraction, &c + 0.31 Zenith Distance 0 17 7.71
Mean····	0 17 13.30	Mean····	0 17 1.51	

, AQUILÆ.

19. 31.	2 51 0.07 2 51 4.86	August 7. 9. 12.	2 50 51.27 2 50 47.34 2 50 52.16 2 50 53.83	Mean
Mean····	2 51 2.23	Mean····	2 50 51.77	

ATAIR.

1805. Month.	Left Arc.		Left Arc.		Left Arc. 1805. Right Arc.		. Mean.			
July 12. 15. 19. 29. 31. August 8. 10. 13. 20.	4° 38′ 4 38 4 38 4 38 4 38 4 38 4 38 4 38 4 38	4".11 5.54 5.97 5.54 3.83 1.66 1.93 2.21 4.36	July 13. 16. 22. 30. August 7. 9. 12. 17. 30. Mean	4° 37′ 51″.07 4 37 52.65 4 37 52.42 4 37 52.21 4 37 54.09 4 37 55.33 4 37 53.65 4 37 56.45 4 37 54.05	Mean4° 37′ 58″.73 Refraction, &c. + 4.61 Zenith Distance 4 38 3.34					

β AQUILÆ.

1806. August 25.	7 7	4 4	4.89 7.34	1806. August 26.	7	3	56 .24	Mean7 Refraction, &c	4 +	1.18 7.18
Mean····	7	4	6.11	Mean····	7	3	56.24	Zenith Distance 7	4	8.36

MARKAB.

1805. August 14. 21. 23. 28. 30.	1 9 42.98 1 9 41.58 1 9 41.91 1 9 39.42 1 9 41.15			Mean 9 36.57 Refraction, &c. + 1.19 Zenith Distance 1 9 37.76
Mean····	1 9 41 .41	Mean	1 9 31.73	-

PEGASI.

August 23. 30.	1	6 6	7.21 9.69	August 22. 27.	1	5	57.22 58.56	Mean1 Refraction, &c.	6+	3.17 1.06
Mean····	1	6	8.45	Mean····	1	5	57.89	Zenith Distance 1	6	4.23

ARCTURUS.

16.	7° 12′ 19″.93 7 12 18 .52 7 12 19 .95	July 13.	Mean7° 12′ 12″.81 Refraction, &c + 7.03
Mean····	7 12 19 47	Mean····	Zenith Distance · · 7 12 19 .84

The Latitude of Dodagoontal Station, deduced from the foregoing Stars.

	From the beg	inning of 1805.	
STARS.	Mean Declination.	Correct Z. Distance.	Latitude.
Arcturus Serpentis Herculis Ophiuchi Aquilæ Atair Aquilæ Markab Pegasi	7 3 0.3 14 37 30.96 12 42 50.91 10 8 58.34 8 21 53.53 5 55 52.71 14 9 40.09	7° 12′ 19″.84 N. 5 56 59 .64 S. 1 37 28 .99 N. 0 17 7.71 S. 2 50 59 .78 S. 4 38 3 .34 S. 7 4 8 .73 S. 1 9 37 .76 N. 1 6 4 .23 N. Mean	59 .97 61 .97 58 .62 58 .12 56 .87 61 .44 62 .33 60 .47

This is one of the stations alluded to in the note p. 291, where the plummet is supposed to have been drawn to the northward; in which case the a titude here deduced must be something in defect.

9. Pole-star observations at *Dodagoontah* Station, reduced for determining the position of the Meridian.

1805.	Apparent Polar	Latitude.			Angle between
Month.	Distance.	Latitude.	Azmutus.	Lamp.	Lamp.
Angle betwee	1° 43′ 58″.20 1 43 57 .57 1 43 54 .07 1 43 53 .05 1 43 51 .70 1 43 51 .16 1 43 50 .04 1 43 49 .09 1 43 48 .82 en the N. Pole a	12° 59' 59".91 Ind Referring Flag and Sav	endroog ····	1 31 56 .25 1 31 51 .25 1 31 48 .50 1 31 46 .25 1 31 47 .50 1 31 45 .50 1 31 43 .50 1 31 44 .50 rly	0 14 45 .45 0 14 46 .85 0 14 48 .56 0 14 49 .42 0 14 47 .90 0 14 49 .60 0 14 48 .47 0 14 49 .49 0 14 48 .23 0 14 48 .31 104 4 29 .68
Angle betwee	n the N. Pole a	nd Savendro	og Station · · · ·		103 49 41 .37

SECTION V.

Length of the Perpendicular Degree, and the Latitudes and relative Longitudes of all the great Stations of Observation, and other places on the two Coasts.

10. The measurement of an arc perpendicular to the meridian, and the length of a degree in latitude 12° 55′ 10″.

For determining the latitude of Savendroog, we have at Dodagoontah station, the bearing of Savendroog station with the meridian 76° 10′ 18″.63 S. W^{1y.} and the distance between these two stations = 121933.2 feet. These will give the westing of Savendroog = 118399.2 feet, and the southing of the point on the meridian of Dodagoontah, where the perpendicular let fall from Savendroog, will cut the said meridian = 29143.3 feet, which is equal to an arc of 4′ 48″.88, and this deducted from the latitude of Dodagoontah gives 12° 55′ 11″.03. The westing will give an arc perpendicular to the meridian 19′ 29″.04, with which, and the co-latitude of the above point, the latitude of Savendroog will be had 12° 55′ 10″.24.

Note. The meridional degree is taken at 60498 fathoms, being the computed degree for Latitude 12° 55′ 10″, as deduced from the measured degrees for latitude 11° 59′ 55″ and latitude 52° 02′ 30″.

Pole-Star Observations at Savendroog Station, reduced for determining the position of the Meridian.

1804 Month.	Apparent Polar Distance.	Latitude	Azimuths.	Angle between the Pole-star and Referring Lamp.	
March 6. 7. 8. 9. 10. 13. 14. 15. 16. 21.	1° 43′ 57″.66 1 43 57 .94 1 43 58 .23 1 43 58 .49 1 43 58 .77 1 43 59 .62 1 43 59 .91 1 44 00 .19 1 44 00 .96	12° 55′ 10″.24	1° 46 39'.72 1 46 40 1 46 40 .3 1 46 40 .57 1 46 40 .86 1 46 41 .73 1 46 42 .03 1 46 42 .62 1 46 43 .11	2 28 57 .25 2 28 54 2 28 53 .5 2 28 57 .75 2 28 56 2 28 58 .75 2 28 58 .75	0 42 17 .25 0 42 13 .7 0 42 12 .93 0 42 16 .89 0 42 14 .27 0 42 16 .72 0 42 16 .44
Angle betwe	en the North Po en the Referring en the North Po	Lamp a	and Mullapunna	betta · · · · ·	0 42 15.89 F. 90 40 01.16 89 57 45.27 W.
Angle betwe	en the North Po	ole and F Lamp a	Referring Lamp and Yerraconda	lı	0 42 15 89 E. 92 04 49 .45 92 47 05 .34 E.

Pole-Star Observations at Mullapunnabetta Station, reduced for determining the position of the Meridian.

						-	*			_									
Nov. 7		1 4	13	42.37			1	46	24	_	170	43	15	.25	172	29	39	.25	
8		1 4	13	42.03											172				
10	.	1 4	13	41.36			1	46	22	.96	170	43	18	.37	172	29	41	.33	
12		1 4	ŀ3	40.71			1	46	22	.29	170	43	19	.13	172	29	41	.42	
13		1 4	13	40.39			1	46	21	.96	170	43	19	.38	172	29	41	.34	
14	.	1 4	13	40.07			1	46	21	.64	170	43	20		172	29	41	.64	
15		1 4	13	39.75			1	46	21	.31	170	43	19	.62	172	29	40	.93	
16	.	1 4	13	39.42		12	1	46	20	.97	170	43	20		172	29	40	.97	
17	.	1 4	13	39.11		Ç,	1	46	20	.65	170	43	19	.25	172	29	39	.0	
19	.	1 4	ŀ3	38.49		Öl	1	46	20	.02	170	43	19	.25	172	29	39	.27	
$\left. \begin{array}{c} 1805 \\ \text{Dec.} \end{array} \right\} 12$				13 24	1	05.6					170		_		172				
13	.	1 4	13	13.04			1	45	53	.9	170	43	48	.25	172	29	42	.15	
14		1 4	13	12.85			1	45	53	.71	170	43	48	.12	172	29	41	.83	
15	- 1	1 4	13	12.67			1	45	53	.52	170	43	47	.75	172	29	41	.27	
16	.	1 4	13	12.49			1	45	53	.34	170	43	49	.25	172	29	42	.59	
20	.	1 4	13	11.84			1	45	52	.67	170	43	48	.2	172	29	40	.87	
24	-	1 4	13	11.29			1	45	52	.11	170	43	48	.5	172	29	40	.61	
25		1 4	13	11.16			1	45	51	.99	170	43	50	.35	172	29	42	.34	
Angle betw	еен	the	N	orth Po	le	and I	Refer	rring	La	np				• • •	172	29	41	.25	W.
Angle bety																			
Angle bety	veen	the	N	orth P	ole	and	Savo	ndro	oog					,	89	48	44	.39	E.

Pole-Star Observations at Yerracondah Station, reduced for determining the position of the Meridian.

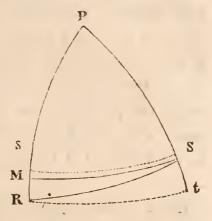
1804 Month.	Apparent Polar Distance.	Latitude	Azimuths. Angle between the Pole-star and Referring Lamp.		
Jan. 15. 16. 19. 20. 21. 22. 23. 26.	1° 43′ 49″.81 -1 43 49 .82 1 43 49 .9 1 43 49 .95 1 43 50 .02 1 43 50 .07 1 43 50 .26 1 43 50 .35	12° 52′ 14′.36	1° 46′ 30″.42 1 46 30 .43 1 46 30 .51 1 46 30 .53 1 46 30 .63 1 46 30 .63 1 46 30 .68 1 46 30 .96	9 3 3.85 9 3 2 9 3 3.5 9 3 5.5 9 3 3.75 9 3 4	7 16 31 .49 7 16 32 .97 7 16 34 .94 7 16 33 .12 7 16 33 .32 7 16 34 .12
Angle betwe	en the North Po en the Referring en the North Po	g Lamp	and Savendroog		7 16 33 .64 E. 94 16 14 .97 86 59 41 .33 W.

As the latitudes were necessary for computing the azimuths, they were first had spherically for the two stations at Mullapunnabetta and Yerracondah, by taking the westing and easting from the meridian of Savendroog, and converting them into parts of great circles. These came so near the truth, that on recomputing the azimuths by the latitudes finally brought out, there was no sensible difference.

It may be remarked here, that no double azimuths have been taken. The pole-star being so low, and the vapour in the atmosphere so great in general, that I have never, except in two instances, been able to discern it while the sun was above the horizon.

The Arc comprehended by the Meridians of Savendroog and Mullapunnabetta.

Let S and M be the stations at Savendroog and Mullapunnabetta, and P the pole, and SR be a great circle perpendicular to the meridian SP at S, and also Ss a parallel of latitude at the same point S. Then we have given the observed angles PSM and PMS, the distance SM, and the latitude of S, to find the latitude of M.



In the spheriodical triangle MSR, the angle MSR = $90^{\circ} - \angle$ PSM $\equiv 0^{\circ}$ 2' 14".73, and the angle SMR = $180^{\circ} - \angle$ PMS = 90° 11' 15".61, and these being corrected for the chords, we shall have the angle MSR = 0.2' 14".73, and the angle RMS = 90° 11' 15".58 for the chord angles. Whence the angle SRM = 180° — sums of the above angles, or 89° 46' 29.69, and with these and the side or chord MS, the distance given by the triangles, we shall find the chord of the perpendicular arc SR = 357644.6 and the side MR = 233.64 feet, and this last may be taken either as a chord or arc indifferently.

Now the spherical excess of the triangle SMR is 0".02, and the sum of the corrections for the angles MSR and SMR being - 0".05, the difference between this sum and the said spherical excess is + 0".01 the correction for the angle MSR, which applied to the chord angle, we get the angle MRS or PRS as an observed angle, equal 89° 46′ 29".68.

Continue the meridian PS to t, and draw Rt parallel to Ss. Then, since the small angle SRt, or its equal RSs, is half the difference between the angles PRS and PSR, that is half the difference between 90° and the angle PRS as an observed one, we have $\frac{90^{\circ} - (89^{\circ} \ 46' \ 29''.68)}{2} = 6' \ 45''.16$, the angle RSs. Hence in triangle RSs considered as a plane one, there are given the angles at R and S and the side SR, as formerly found, from which will be had Ss and Rs equal 357642.6 feet and 702.51 feet respectively; as also Ms (= RS - RM) equal 468.87 feet, which measures the distance between the parallels of S and M. But 468.87 feet as an arc on the meridian is 4''.65, which substracted from the latitude of S gives 12° 55' 05''.59 for the latitude of M, the station at *Mullapunnabetta*.

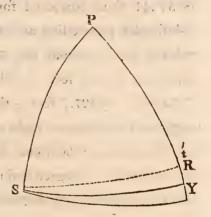
Hence in the triangle SPM there are given the sides SP and MP (the co-latitudes of S and M) and the angles PSM, PMS, the observed angles at S and M. Then, as the tangent 77° 4′ 52″.085: tangent 0° 0′ 2″.325: tangent 89° 53′ 14″.83: tangent 0° 4′ 31″.26; which last applied to the half sum of the observed angles, we get 89° 53′ 14″.83 + 4′ 31″.26 = 89° 57′ 46″.09 and 89° 53′ 14″.83 — 4′ 31″.26 = 89°48′ 43″.57 for the angles at Savendroog and Mullapunnabetta such as they would have been observed on a sphere. Then proceeding by spherical computation with the sides PS, PM, and the angles PSM and PMS given, the angle SPM, or difference of longitude of S and M will be had equal 1° 00′ 24″.44, from which and the side SP in the right angled spherical triangle PSR the side SR or arc SR perpendicular to the meridian PS at the point S will be had equal 0 58′ 52″.71.

Now the chord of the arc SR is had = 357644.6 feet, half of which will be as the sine of half the arc SR, and from which is got the radius of the same arc, and thence the length of the arc SR is found to be 357650.8 feet. Then as 58' 52".71: 357650.8:: 60': 364463.3 feet, or 60743.8 fathoms, for the measure of the degree at right angles to the meridian of Savendroog.

The Arc comprehended by the Meridians of Savendroog and Yerracondah.

Let S and Y be the stations at Savendroog and Yerracondah respectively,

and let the latitude of Y be deduced from that of S, the angles PSY and PYS having been observed. Let SR be a great circle perpendicular to the meridian SP at S, and St a parallel of latitude at the same point S. Here the angle RSY \equiv PSY $-90^{\circ} = 2^{\circ}$ 47 5".34, and the angle RYS being the observed angle at Y = 86° 59′ 41".33. These angles being corrected for the chords, the supple-



ment to their sum will be the chord angle at R in the spheriodical triangle SRY. Let the chords of SR and YR be computed with the corrected angles, then if the angle at R be augmented by the difference between the sum of the corrections for the other two angles and the spherical excess, it will become 90° 13′ 14″.74, or such as would have been observed at R. Hence $180^{\circ} - \angle SRY = 89^{\circ} 46' 45''.26'$ the angle t'RS, and by considering the triangle St'R as a plane one, the small angle tSR is equal $\frac{90-\angle t'RS}{2} = 0^{\circ} 6'$ 37′.37. With this angle, and the angle tRS, and the distance SR, as found above, the small side t'R is had = 675.86 feet, which added to RY = 170 67.72 gives t'Y = 17743.58 feet, the distance between the parallels of S and Y. But 17743.58 feet is equal to an arc on the meridian of 2′ 55′.98, and this deducted from the latitude of Savendroog, gives 12° 52′ 14″.26 for the latitude of Yerracondah.

Hence, with the co-latitudes of Savendroog and Yerracondah, and the

observed angles PSY and PYS, we have, the tangent of half the sum of the first, to the tangent of half their difference, as the tangent of half the sum of the second, to tangent of 2° 54′ 25″.92, their half difference: from which we get, the greater angle at S = 92° 47′ 49″.25, and the less angle at Y = 86° 58′ 57″.41 thus corrected for computing spherically: and with these and co-latitudes, proceeding as before, the angle SPY will be had = 0° 59′ 14″.83, and the perpendicular arc = 0° 57′ 44″.86. But the chord subtended by this arc is 350824 feet, and therefore the arc itself 350827.7 feet. Then, as 57′.74767: 350827.7 feet: 60′: 364510.8 feet, or 60751.8 fathoms, for the length of the degree at right angles to the meridian of Savendroog, as deduced from the distance between Savendroog and Yerracondah; and the length of the perpendicular degree deduced from the distance between Savendroog and Mullapumabetta being 60743.8 fathoms, the mean of these two, or 60747.8 fathoms, may be considered as nearly the true measure for latitude 12° 55′ 10′.

If the ratio of the earth's diameters be taken as 1: 1.003125, and the meridional degree in latitude 11° 59′ 55″ be 60494 fathoms; then, by using these data, the computed meridional degree on the ellipsoid in latitude 12° 55 10″ will be 60498 fathoms; with which and the above ratio, the computed degree at right angles to the meridian in the same latitude will be had 60858 fathoms, which exceeds the measured one by 110 fathoms nearly; so that we may infer from this, either that the earth is not an ellipsoid, or that this measurement is incorrect.

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The more we investigate this interesting subject, and the more ample means we employ to ascertain the exact figure of the earth, the more seems to be wanting to satisfy our research; and if we feel reluctant in giving up the elliptic hypothesis, because it is consonant to that harmony and

and she was the

order with which we are familiar, the discord which these results indicate, afford by no means sufficient evidence to induce us to abandon that theory. The great nicety in making the pole-star observations is well understood, and it will be made more manifest in the case before us by increasing or diminishing the half sum of the angles with the meridians, reciprocally taken at *Mullapunnabetta* and *Savendroog*, by one second only, when it will appear that a difference of nearly one hundred and fifty fathoms, in the perpendicular degree, will be occasioned thereby.

I am fully aware of the delicacy necessary in taking these angles, and I am also aware that some eminent mathematicians consider the method of determining the difference of longitude by the convergency of meridians as insufficient in these low latitudes; yet I am of opinion that by repeating these observations whenever stations can be found, either in the same, or in different latitudes, the truth may ultimately be very nearly attained. I at one time had determined on increasing the number of observations at Mullapunnabetta, Savendroog and Yerracondah, on my return to the eastward; but when I was at Mullapunnabetta a second time, and had increased the number of pole-star observations there to eighteen, and had also taken several other angles between Savendroog and the referring lamp, and after all finding that the angle between the meridian and Savendroog was altered only $\frac{1}{2.5}$ part of a second, I did not think it necessary to go to the other stations, particularly as the observations there had been made under the most favorable circumstances. It is, notwithstanding, desirable that many more measurements of the kind should be made, and that other methods should be tried for getting the length of a degree of longitude, particularly that of carrying a good time-keeper between two meridians at a known distance, a method which has been strongly recommended to me by the Astronomer Royal, and which I mean to put in practice in the course of my future operations. I had also devised another method by the instantaneous extinction of large blue lights fired at Savendroog, the times of which were to be noticed by observers at Mullapunnabetta and Yerracondah, the distance of whose meridians on a parallel of latitude passing through Savendroog being nearly 135 miles. The experiments were attempted, but the weather was so dull that the lights could scarcely be distinguished. There is besides a difficulty in fixing the precise moment of extinction; and even in the most favorable state of the atmosphere, when the lights may be distinctly seen with the naked eye at near seventy miles distance, to come within half a second of the truth, would be as near as the eye is capable of, which is equal to 7"½ in an angle at the pole: but the mean of a great number of successful results might come very near the truth.

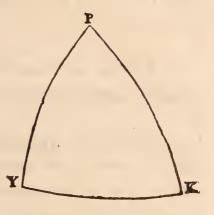
Since the triangles in this survey have been carried direct from the observatory at Madras to Mangalore, by which easy means are offered to determine the length of a parallel of latitude subtended by two meridians nearly five degrees and a half distant from each other, it may be further suggested, whether a long course of corresponding observations made at Madras observatory and at another place on the Malabar coast, by the eclipses of the satellites, occultations of stars by the moon, &c. might not afford another eligible method for determining the length of a degree of longitude.

In short, the difficulty of obtaining this desideratum, and the important advantages to geography and physical science which must accrue therefrom, are such powerful incitements to a zealous prosecution of the inquiry, that I may venture an assurance of leaving nothing undone, which may come within the compass of my abilities, to give every possible satisfaction on the subject; and if my endeavours to throw some light on the path to future discovery be successful, I shall close the period of my labours with the grateful reflection, that, while employed in conducting a work of national utility, I shall have added my humble mite to the stock of general science.

11. Latitude and longitude of Kylasghur.

Let Y be Yerracondah, K Kylasghur, and P the pole. Then in the

spherical triangle PYK there are given YP = 77. 7' 45".74, the co-latitude of Yerracondah, YK = 46' 33".51, the oblique arc as computed on the spheroid; and the angle PYK = 92° 13' 46".11, as observed at Yerracondah, to find PK, the co-latitude of Kylasghur, which by spherical computation will be had equal 77° 9' 38".7, and therefore the latitude equal 12° 50' 21".3, with which lati-



tude the azimuths being reduced, the pole star observations at Kylasghur will stand as follow:

1803.	Apparent Polar Distance.	Latitude	Azimuths.	Angle between the Pole-star and Referring Lamp.	Angle between the North Pole and Referring Lamp.
Dec. 3. 7. 12. 13.	1° 43′ 54″.74 1 43 53 .82 1 43 52 .84 1 43 52 .5	12° 50′ 21″.3	1° 46′ 35″.41 1 46 34 .51 1 46 33 .56 1 46 33 .46	3° 28′ 57″ 3 28 52 .4 3 28 55 .25 3 28 53 .5	1° 42′ 21″.59 1° 42′ 17′.89 1° 42′ 21′.69 1° 42′ 20′.04
)	1 42 20 .30 E. 89 17 57 .607
Angle between	en the North Po	le and Y	erracondah	• • • • • • • • • •	87 35 37.307 W.

If the same angle be brought out by using the co-latitudes of Yerra-condah and Kylasghur, and the observed angle at Yerracondah, between the N. pole and Kylasghur, it will be 87° 35′ 37″, very nearly the same as was observed.

Then again, as the sine of either of the co-latitudes, is to the sine of the opposite angle, so is the sine of the oblique arc KY, to sine of the angle

KPY, equal 47' 42".98, the difference of longitude; to which add the difference of longitude between *Yerracondah* and *Savendroog*, equal 59' 14'.83, we have 1° 46' 57'.81 for the longitude of *Kylasghur*, east from the meridian of *Savendroog*.

12. Latitude and Longitude of Karnatighur, and the position of its meridian, deduced from that of Kylasghur.

The southing of Karnatighur from Kylasghur is 95144 feet, equal to an arc of 15' 43".61 on the meridian of Kylasghur; and the easting is 1093.83 feet, equal to 10".8 of a great circle at right angles to the said meridian, and passing through Karnatighur. From the nearness of the meridians of these two stations, the former arc may be considered as the difference of latitude, and therefore being subtracted from the latitude of Kylasghur, we have 12° 34′ 37".69 for the latitude of Karnatighur. Hence, by using the co-latitude 77° 25′ 22".31, and the small perpendicular arc 10'.8, we shall have the difference of longitude 11".06, and the convergency of the meridian of Karnatighur towards that of Kylasghur 2".46 nearly. The former of which being applied to the longitude of Kylasghur, will give 1° 47′ 8".87 for the longitude of Karnatighur from the meridian of Savēndroog, E.

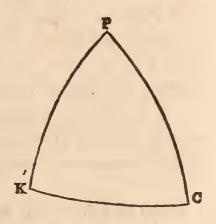
Now the observed angle at Kylasghur, between the north pole and Karnatighur, was 179° 20′ 28″.83, whose supplement is 0° 39′ 31″.17, which will therefore be the angle at Karnatighur, between the north pole and the parallel to the meridian of Kylasghur; from which subtract the convergency, we get 0° 39′ 28″.71 for the angle between the north pole and Kylasghur, westerly; and this subtracted from 93° 28′ 42″.22, the angle formerly taken at Karnatighur, between Kylasghur and Carangooly, gives 92° 49′ 13′.51 for the angle between the north pole and Carangooly.

The same angle taken at Karnatighur, in 1803, was 92° 49' 15".93, but as there is reason to doubt the accuracy of that angle, from reasons already given, to which may perhaps be added the want of experience, I shall reject it and adopt the one now brought out for determining

13. The latitude and longitude of Carangooly Hill.

The length of the arc comprehended by the stations at Karnatighur and Carangooly, as determined by the triangles in 1803, was 291196.9 feet, which, as an oblique arc, according to the present scales, will be equal 47' 56".21.

Let P be the pole, K' Karnatighur, and C Carangooly; and therefore K'C the oblique arc = 47' 56'.21. Then if * the observed angle at Carangooly, be made use of, (which must be accurate enough for this purpose) we have sine PK': sine \(\times \text{PCK'} :: \) sine K'C: sine angle K'PC equal 49' 2".9, the difference of longitude. Hence 1° 47' 8".87 +



49' 2".9 = 2° 36' 11".77, the longitude of Carangooly from the meridian of Savendroog.

And as sine angle PCK': sine K'P:: sine \angle PK'C: PC = 77° 27′ 48″.2, the co-latitude of *Carangooly*, whose complement 12° 32′ 11″.8 is therefore the latitude.

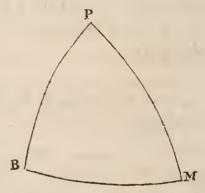
14. Latitude and longitude of Balroyndroog, with the position of its meridian.

^{*} As determined in 1803, equal 87° 00' 07".54.

As the atmosphere was so extremely dull when the pole-star observations were made at *Balroyndroog*, the angle between its meridian and the station at *Mullapunnabetta*, could not be taken, we must therefore depend altogether on computations made with the oblique arc, the latitude of *Mullapunnabetta*, and the angle at that station with the N. pole, and the station at *Balroyndroog*.

Let M and B be the stations at Mullapunnabetta and Balroyndroog res-

pectively, and let P be the pole, then having given PM equal 77° 4′ 54″.41, BM the oblique arc equal 52′42″.12, and the observed angle PMB equal 75°52′54″.95, we shall obtain by spherical computation the side BP = 76° 52′ 08″.4 the co-latitude, and the angle BPM 52′ 28″.94 the difference of longitude, which add to the longitude of Savendroog from Ca-



rangooly hill, and Mullapunnabetta from Savendroog, there will be 4° 29' 05".15, the longitude of Balroyndroog from Carangooly hill.

Taking the latitude thus found for computing the azimuths, the pole-star observations at *Balroyndroog* will stand as follow:

23.	reen the N. Referring	Pole and		ole-s	the I	iths.	Zimi	£	Latitude	ır	Pola	arent Iistai	App 1		1805 Mont
28. 1 43 36 .03 1 46 22 .97 56 46 43 .41 55 00 2	22 .02 21 .27 20 .75 22 21 .51	55 00 2 55 00 2 55 00 2 55 00 2	43 .75 3 43 .20 3 43 44 .5 3 44 .25 3	46 46 46 46	56 56 56 56	21.73 21.98 22.25 22.50 22.74	46 46 46 46 46	1 1 1 1	13° 07′ 51″.6	32 06 33 57 30	34 .3 35 .3 35 .3 35 .8	43 43 43 43 43	1 1 1 1	23. 24. 25. 26.	

15. Reduction of some principal places on the two coasts in latitude and longitude.

distances of	Distances from Balroyn- droog on the Perpendic. Meridian.	feet. 116722 S. 98008 N. 166502 S. 268107 S. 268103 S. 400329 S. 331826 S. 463920 S.
ls, and the ndicular.	Distances on the Distances from Balroyn-droog on the Perpendic. Meridian. Perpendic. Meridian.	feet. 116546 W. 206380 W. 139909 W. 135989 E. 65829 W. 75931 W. 69272 E. 15714 W.
t its parallei om its perpe	es on the Meridian.	feet. feet. feet. 645945116546 W. 116722 S. 116540 W. 18714 N. 2016540 W. 18714 N. 206380 W. 18734 W. 18714 N. 206380 W. 1068 S. 139909 W. 20168 J. 2016 S. 139909 W. 20168 J. 2010 S. 139909 W. 20168 J. 2010 S. 139909 W. 131726 S. 135989 E. 10102 W. 131726 S. 75931 W. 13701 E. 63223 S. 65274 W. 13501 J. 2010 J. 2
ndroog and ian, and fro	Distances on the	feet. 116546 W. 89834 W. 23363 W. 2920 E. 74080 E. 10102 W. 135101 E. 84986 W.
Balroy t Merid	Dists.	feet. 164945 91762 54990 101681 126146 132113 149160 157072 175847
t the Meridian of	Bearings referred to the Meridian of Balroyndroog.	44° 57′ 26′ S. W. 78 13 58 N. W. 25 08 29 S. W. 25 57 46 S. E. 35 57 46 S. E. 4 23 08 S. W. 64 55 19 S. E. 32 45 22 S. W. 14 25 51 S. W.
ontaining the angles with the interiain of Bairoynatoog and its parailets, and to certain places on the Malabar coast from that Meridian, and from its perpendicular.	Places computed.	Bullamully feet. g8008 Baekul 25 0.2. 2. 35 5. 4. 5. 6. 175399 W. 165502 6. 168103 M. 166502 M. 166502 M. 166502 M. 166502 M. 166502 M. 166502 M. 166502 <td< td=""></td<>
TABLE 1. Containing the angles with the Meridian of Baltoyndroog and its parallels, and the distances of certain places on the Malabar coast from that Meridian, and from its perpendicular.	STATIONS AT	Balroyndroog Bullamully 44° 57′ 26″ S. W. 164945 116546 W. 116722 S. 116549 W. 116722 S. 116549 W. 116722 S. 116549 W. 116723 S. 116549 W. 116721 S. 116549 W

Containing the angles, with the Meridian of Carangooly and its parallels, and the distances of certain places on the Coromandel coast from that Meridian, and from its perpendicular. TABLE 2.

•					in managed and the second			
STATIONG AT	Dlaces committed	Bearings referred	355	Distane	Distances on the	Distances from Carangooly on the	from Carangool on the	<u> </u>
	Target Combact	Carangooly.	Dists.	Perpendic.	Meridian.	Perpendic. Meridian. Perpendic. Meridian.	Meridian.	1
Carangooly Hill Mullapode Hill Mowhrey's House Permacoil Hill Mooratan Station	Carangooly Hill Mullapode 17° 47′ 01″ N. E. 144405 44105 E 137505 N. 44105 E. 137505 N. 44105 E. 137505 N. Mullapode Hill Fort St. George 58 27 57 N. E. 13759 96960 E. 59497 N. 141065 E. 197002 N. Mowbrey's House 64 16 15 N. E. 15914 E. 15914 N. 127008 E. 197002 N. Mowbrey's House Madras Observatory 0 00 18 N. E. 15914 E. 15914 N. 127009 E. 19370 N. Permacoil Hill Mooratan Station 12 20 28 S. E. 83352 17815 E. 81426 S. 37296 W. 203832 S. Mooratan Station Poudcherry 17 38 45 S. E. 23207 17150 E. 15635 S. 20146 W. 219467 S. Trivandenorum 17 43 21 S. W. 87363 26594 W. 83217 S. 63890 W. 2287049 S.	feet. 17° 47′ 01″ N. E. 144405 4 24 14 20 S. W. 134240 5 58 27 57 N. E. 113759 9 64 16 15 N. E. 92027 8 0 00 18 N. E. 92027 8 12 20 28 S. E. 83352 1 17 38 45 S. E. 9363 2 17 38 45 S. E. 9363 2 17 38 30 S. F. 93644	feet. 144405 134240 113759 92027 15914 83352 23207 87363	feet. feet. 44105 E 137505 55111 W. 122406 96960 E. 59497 82903 E. 39951 1 E 15914 17815 E. 81426 17150 E. 15635 26594 W. 83217	feet. 137505 N. 122406 S. 39497 N. 39951 N. 15914 N. 81426 S. 15635 S.	feet.	feet. 137505 N 197002 N 177456 N 19370 N 203832 S 219467 S	
		20 20 00 0	- 20 T	7 41702	0 6/20	4000	220062	•

By table the first, Mangalore flag-staff is west from the meridian of Balroyndroog 206380 feet, and south 98008 feet from the station; and these converted into arcs according to the above scales, will give 33' 58" and 16' 12" respectively, and the latter arc added to the co-latitude of Balroyndroog (equal 76° 52' 8".4) gives 77° 08' 20" for the co-latitude of the point where a perpendicular from Mangalore will cut the meridian of Balroyndroog at right angles. Then as Rad.: Cos. 77° 8' 20":: Cos. 33' 58" (the perpendicular): 77° 08' 22", the co-latitude of Mangalore.

And again, as Tan. 33' 58": Sin. 77° 08' 20":: Rad.: Cot. 34' 50", the difference of longitude between *Balroyndroog* and the flag-staff at *Mangalore*.

By proceeding in the same manner with the other places on that coast, we shall have their latitudes, and their longitudes from the meridian of *Balroyn-droog* as follow:

Names of Places.	Latitudes.	Longitudes from Balroyndroog.
Mangalore Flag-staff Baekul Fort S. E. Cavalier Mount Dilli Station Canuanore Flag-staff Tellicherry Flag-staff	12 23 32 12 01 41	0° 34′ 50″ W. 0 22 55 W. 0 12 47 W. 0 02 38 W. 0 04 17 E.

By table 2d, the observatory at *Madras* is 127009 feet east, and 193370 feet north from the station at *Carangooly*, which converted into arcs give 20'54":45 and 31'57".78 respectively; which being applied to the meridian and its perpendicular, passing through the observatory, and computing spherically, as in the last case, we shall obtain 13° 04'8.7 for the latitude of the observatory, and 21' 27".81 for its longitude east from the meridian of *Carangooly*. And by pursuing the same method of calculation, we shall have certain places on the *Coromandel* coast referred to the meridian of *Carangooly* as follow:

Names of Places.	Latitudes.	Longitudes from Carangooly.
Madras Observatory Fort St. George Church Steeple Pondicherry Flag-staff Cuddalore Flag-staff	13 04 45 11 55 56	0° 21′ 27″.81 E. 0 23 44 E. 0 03 20 W. 0 06 48 W.

The difference of longitude between the meridians of Carangooly and Balroyndroog, by Art. 14, is 4° 29′ 15′.15, to which add the longitudes of the different places from the respective meridians, as heretofore deduced, we shall have the difference of longitude of those places which lie nearly in the same parallels of latitude as follows:

Difference of longitude between the observatory and Mangalore, 5° 25' 23'

Church in Fort St. George and ditto, 5 27 45

Pondicherry and Cannanore, - - 4 28 13

Cuddalore and Tellicherry - - 4 18

Here it may be proper to notice that in the requisite tables, the difference of longitude between Fort St. George and Mangalore is 5° 27' 25", within 20" of what is here given; but the difference of longitude between Cuddalore and Tellicherry is 4° 8' 42", differing no less than 9' 18" from the triangular measurement.

APPENDIX.

TABLE of LATITUDES and LONGITUDES of some of the principal Places, as deduced from the Operations in general.

Note. In the abbreviations H signifies hill; P pagoda; and Dg. droog. In all pagodas the tower is meant, unless otherwise specified; or, if they are stations, the platform is generally the place where the instrument stood, and is mostly marked by a small mill-stone. All places having the asterisk (*) annexed to them are the stations of the large theodolite, and are distinguished either by platforms with large stones in the middle, having small circles inserted thereon; or if on a rock, the circle is inserted on the rock: and in both cases the centre of the circle denotes the point over which the plummet was suspended.

TABLE-CONTINUED.

N. Carre		Longita	ıde from
Names of Places.	Latitude.	Madras Observ.	Greenwich.
* Bettatipoor H. and P		4° 8′ 23″ W.	76° 8′ 7″ E.
BHAVANY P.	11 25 45	2 34 19	77 42 11
* Bodeemulla · · · · · · · · · · · · · · · · · ·	13 12 41	1 10 55	79 5 35
Bodeelimrauz Dg	12 26 17	2 7 13	78 9 17
* Remandler II and D	12 37 15	2 8 14	78 8 16
* Bomanelly H. and P * Bonnairgottah	13 16 18 12 48 43	3 37 1 2 40 41	76 39 29 77 35 49
* Booggargooda ·····	13 3 4	5 15 16	75 1 14
* Bullamully · · · · · · · · · · · · · · · · · ·	12 48 33	5 10 14	75 6 16
* Bullanaugooda · · · · · · · · · · · · · · · · · · ·	12 45 12	5 5 28	75 11 2
* Bundhully Dg	12 12 16	2 55 2	77 21 28 -
Busmungy Dg	13 44 24	3 12 57	77 3 33
Byran Dg	13 5 41	3 4 47	77 11 43
CANANORE FORT, Flag Staff	11 51 11	4 53 1	75 23 29
* Carangooly H	12 32 12	0 21 28	79 55 2
CAVERYPOORUM FORT	11 54 43	2 29 36	77 46 54
CAUVERYPAUK FORT	12 54 15	0 47 18	79 29 12
CHALAMCOTTAH Large Tree	13 26 50	2 7 36	78 8 54
CHARGUL Dg.	12 53 18	1 36 19	78 40 11
Charley U	13 26 37	3 21 1	76 55 29
* Cheetkul H	13 19 16	2 56 52	77 17 38
* Chencaud · · · · · · · · · · · · · · · · · · ·	12 27 53 11 56 56	5 15 13 0 39 45	75 1 17 79 36 45
CHENROYN Dg	13 35 49	3 2 43	77 13 45
CHINGLEPET Fort Flag Staff	12 41 59	0 16 12	80 0 18
CHINI Dg	12 42 18	1 42 19	78 34 11
CHINEROYPUTTUN	12 54 9	3 51 53	76 28 37
Chittepet H	12 27 58	0 51 37	79 24 53
Chittepet Mosque ·····	12 27 55	0 53 58	79 22 32
CHITTLE Dg. Flag Staff	14 13 4	3 51 34	76 24 56
CHITTOOR Fort	13 13 5	1 9 27	79 7 3
CHOREEGHERRY Dg	13 55 17	3 8 56	77 7 32
CHUNGAMAH	12 18 4	1 27 24	78 49 6
COLAR FORT P	13 8 20	2 6 49	78 49 41
Conjevaram Great Pagoda	12 50 47	0 32 52	79 43 38
* Coonawaucum H. * Coonum H	12 50 56	0 18 51	79 57 37
Covelong Church	12 5 20 12 47 36	0 34 12 0 0 5 E.	79 42 18
CUDDALORE Flag Staff	11 43 23	0 0 5 E. 0 28 16 W.	80 16 35 79 48 14
Curpan Fort	13 14 39	3 24 11	76 52 19
* Daesauneegooda · · · · · · · · · · · · · · · · · · ·	13 15 46	4 6 34	76 9 56
Darampory Fort	12 3 48	2 5 5	78 11 25
DENKANICOTTAH Fort	12 31 53	2 27 53	77 48 37
DEONELLY Fort	13 14 59	2 32 38	77 43 52
* Deorabetta	12 37 32	2 37 36	77 38 54
* DEVAROY Dg	13 22 25	3 2 28	77 14 2
* Dodagoontah	12 59 59.9	2 37 40	77 38 50
	13 20 13	5 34 14	74 42 16

TABLE—continued.

\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Longitu	de from
Names of Places.	Latitude.	Madras Obser.	Greenwich.
Ennore Tree · · · · · · · · · · · · · · · · · ·	13° 14′ 59″ N.	0° 4′ 42″ E.	80° 21′ 12″ E.
ERODE Fort S. E. Cavalier	11 20 27	2 31 26 W.	77 45 4
French Rock's Pillar	12 30 31	3 33 24	76 43 6
GINGEE Dg. ·····	12 15 18	0 51 19	79 25 11
GOPAUL Dg	12 29 52	2 57 31	77 18 59
GOODEEBUNDAH Dg	13 40 34	2 33 3	77 43 27
* Goompay II	12 40 19	5 14 10	75 2 20
Gooriattum P	13 1 33 12 55 52	3 13 34 1 24 42	77 2 56
Gungangherry Dg	12 25 54	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	78 51 48 78 18 43
Gurradan Dg	13 28 54	4 0 47	76 15 43
* Hallagamulla P. · · · · · · · · ·	11 0 52	2 48 54	77 27 36
* Hanandamulla · · · · · · · · · · · · · · · · · ·	12 55 57	0 51 14	79 15 16
Hassun ·····	13 0 13	4 9 42	76 6 48
Hooly Dg	12 49 13	3 13 5	77 3 25
* Hunnabetta · · · · · · · · · · · · · · · · · ·	13 6 1	4 31 12	75 45 18
Hunnamun Dg	13 55 41	4 19 38	75 56 52
Hurroor Fort	12 2 50	1 46 1	78 30 29
Hyderghur ·····	13 42 6	5 15 27	75 1 3
JAINKUL Dg. · · · · · · · · · · · · · · · · · · ·	13 54 35	3 59 50	76 16 40
JEMALABAD Flag Staff	13 1 34	4 57 46	75 18 44
KARKUL FORT	13 12 34	5 15 36	75 0 54
* KARNATIGHUR ·····	12 34 38	1 10 31	79 5.59
Kasragooda Fort	12 29 36	5 16 3	75 0 27
KAUMUN Dg		2 58 44	77 17 46
Kaup Battery · · · · · · · · · · · · · · · · · · ·	13 13 24	5 31 21	74 45 9 78 14 21
KISTNAGHERRY	12 32 15 13 49 49	2 2 9 2 24	77 48 6
Koadicondah Dg	12 46 3	1 49 0	78 27 30
Koomlah Fort · · · · · · · · · · · · · · · · · · ·	12 36 5	5 19 6	74 57 24
Koondapoor Fort	13 38 10	5 34 11	74 42 19
* Koondhully H. · · · · · · · · · · · · · · · · · ·	12 39 33	4 29 21	75 47 9
* Koondoorbetta · · · · · · · · · · · · · · · · · ·	12 51 16	4 18 19	75 58 11
Kopa Dg	13 32 3	4 56 5	75 20 25
Kowlae Dg		5 8 27	75 8 3
* Kuddapoonabetta · · · · · · · · · · · · · · · · · ·	12 55 37	5 22 29	74 54 1
Kul Dg.	13 38 47	4 20 56	75 55 32
* Kulkolah · · · · · · · · · · · · · · · · · · ·	13 25 14	2 39 9	77 37 21
* Kumbetarenemulla · · · · · · · · · · · · · · · · · ·	11 35 31	2 58 57	77 17 33
* Kunduddakamully ·····	12 23 28	5 1 39	77 14 51
* Kunnoor H	12 51 35	1 2 59	79 13 39
* KYLASGHUR ·····	12 50 51 .3	1 10 42	79 5 48
Mackly Dg	13 25 58 12 30 36	2 45 4 0 43 12	77 31 26 79 33 18
MADRANTICUM P		0 00 00	80 16 30
Madras (Observatory) · · · · · · · · * Maillacherry Dg. · · · · · · · · ·	12 16 6	0 52 32	79 23 58
MAILCOTTAH H. and P		3 36 9	76 40 21
Maharajh Dg	12 53 34	4 19 40	75 56 50
	1		

TABLE—continued.

* Mannoor Marakerra (Tree)	Latitude. 12 54' 56" N. 12 23 0	Madras Obser. 0'14'1" W.	Greenw ch.
MALLAVILLY FORT (S. W. Cavalier) MANGALORE Fort (Flag Staff). * Mannoor	12 23 0	0'14'1" W.	
MEDAGASHIE Dg. Mosque * Meejar Hill MINCHICUL Dg Moodabidderry P.	12 51 38 13 0 39 12 26 20 12 44 44 13 49 54 13 3 21 13 27 47 13 4 24 12 40 57	3 11 54 5 25 23 0 18 51 4 30 46 0 34 59 3 3 34 5 19 21 3 3 16 5 15 38	80° 2° 29° E. 77 4 36 75 51 7 79 57 39 75 45 15 79 41 31 77 12 56 74 57 9 77 13 14 75 0 52 77 27 52
MOOLKY FORT. MONJERABAD. * Moratan * Mount Dilli MOUNT St. Thomas' (Flag Staff) MUDDUKSERAH Dg. MUDGHERRY D.	13 5 12 12 55 4 11 58 30 12 1 41 13 0 20 13 56 41 13 39 7	2 48 38 5 28 13 4 29 51 0 27 42 5 3 20 0 3 18 2 59 0 3 3 11	77 27 32 79 48 17 75 46 39 79 48 48 75 13 10 80 13 12 77 17 30 77 13 19
MULLANAIG P. * Mullapunnabetta MULWAGGLE Dg. * Mungot H. Muntapum N. of Bangalore * Mylum H.	13 9 59	1 25 22	78 51 8
	12 44 43	1 39 2	78 37 28
	12 55 6	3 58 4	76 18 26
	13 10 14	1 52 6	78 23 24
	13 0 31	0 8 57	80 7 33
	13 0 45	2 40 13	77 36 17
	12 7 54	0 37 55	79 38 55
Naggerry Nose NAGMUNGATUM Fort NARRAIN Dg. NARRICUT Dg. * Naudkaunee	12 18 21	3 35 59	76 40 31
	12 16 40 .5	3 35 2	76 41 28
	13 22 50	0 39 13	79 37 17
	12 49 11	3 30 1	77 46 29
	12 42 45	3 40 7	76 36 23
	13 7 54	1 3 58	79 12 32
	10 55 57	2 38 10	77 38 20
ODEA Dg	14 9 31	3 10 21	77 6 9
	13 14 50	3 2 17	77 14 13
	13 49 10	5 13 27	75 3 3
	13 22 12 .5	2 34 1	77 22 29
	12 7 9	3 33 43	76 42 47
	12 36 55	2 19 20	77 57 10
	13 4 21	2 28 13	77 48 17
Ootur Dg	12 43 33	2 24 49	77 51 41
	12 36 55	0 29 32	79 46 58
	12 57 40	3 7 47	77 8 43
	14 5 44	3 43 15	76 33 15
	12 54 45	1 18 46	78 57 44
	13 10 25	1 36 23	78 40 7
	13 19 41 .3	0 34 8	79 42 22
	14 6 19	2 58 34	77 17 56

TABLE—continued.

1			
		Longitu	de from
Names of Places.	Latitude.	Madras Obser.	Greenwich.
PEDNAIG Dg	12° 57′ 33″ N.	1° 38′ 4″ W.	78° 38′ 26′ E.
Percondali Tree	14 4 13	2 40 2	77 36 28
Pennagra Fort	12 7 45	2 20 58	77 55 32
* Permacoil H. · · · · · · · · · · · · · · · · · ·	12 11 58	0 30 45	79 45 45 80 13 21
* Perambauk H	12 53 7 13 13 59	0 3 9 6 53 50	80 13 21 79 22 40
PONDICHERRY Flag Staff	11 55 56	0 24 48	79 51 42
* Ponnassmulla · · · · · · · · · · · · · · · · · ·	12 8 47	2 36 27	77 40 3
* Poonauk H	13 10 2	0 39 8	79 37 22
POONAMALLEE Flag Staff	13 2 37	0 8 16	80 8 14
Pullicate Flag Staff	13 25 9	0 4 13 E.	80 20 43
RAMGHERRY Dg	13 56 53	4 8 19 W.	76 8 11
RAVALNELLORE Dg	11 58 0	1 19 32	78 56 58
RIOJEES CHOULTRY	12 52 25	0 29 54	79 46 36
* Runganelly H. and P	13 39 55	3 25 23	76 51 7
* Rungaswamy H. and P	13 2 3	3 16 56	76 59 34
Rungyan Dg	13 55 21	4 19 31	75 56 59
Rungyan Dg	13 54 14	4 9 30 2 12 54	76 7 0 78 3 36
RYACOTTAH Flag Staff · · · · · · · · · · · · · · · · · ·	12 31 16 13 21 17	2 12 54 2 14 37	78 3 36 78 1 53
* RYMAN Dg	12 31 34	0 4 59	80 11 31
St. GEORGE (Ft.) Church steeple	13 4 45	0 2 22 E.	80 18 52
SANKERRY Dg. Bungaloe on the top	11 28 49	2 23 40 W.	
Sattiagul Fort	12 14 38	3 6 32	76 9 58
SATTIMUNGALUM Fort Bungaloe	11 30 17	3 0 15	77 16 15
SAUTGHUR Building on the top	12 57 49	1 30 28	78 46 2
* SAVEN Dg. Stan. near the Muntapum	12 55 10.24		77 18 50
SERAH FORT Flag Staff	13 44 39	3 20 29	76 56 1
SERINGAPATAM P	12 25 29	3 34 38	76 41 52
Seven Ps. P. on the rock	12 36 56	0 3 21	80 13 9
Shâ Dg	14 9 46	2 44 58	77 31 32 75 36 5
* Shenninulla · · · · · · · · · · · · · · · · · ·	13 55 33 11 9 27	4 40 25 2 39 58	75 36 5 77 36 32
Shevagunga G. P	13 10 9	3 1 51	77 14 39
SHEVERAM H. Choultry	12 46 17	0. 22 45	79 53 45
Sholanghur G. P. · · · · · · · · · · · · · · · · · ·	13 5 20	0 49 49	79 26 41
SOOBRAMANEE H. old P. (G. Mountain)	12 39 44	4 34 11	75 42 19
Soolagherry Dg	12 40 8	2 13 57	78 2 33
Sooloopgherry Dg	12 4 34	1 12 59	79 3 31
STREE PERMATOOR P. · · · · · · · · · · · · · · · · · ·	12 58 7	0 17 57	79 58 33
* Taddiandamole · · · · · · · · · · · · · · · · · · ·	12 13 3	4 38 52	75 37 38
* Tandray	13 8 5	0 10 46	80 5 44
TATTACUTTOO Dg	12 24 5	1 39 42	78 36 48
TOLLACHERRY Fort (Flag Staff) * Telloor H	11 44 52	4 46 16 0 40 5	75 30 14 79 36 25
TENGRICOTTA Fort · · · · · · · · · · · · · · · · · · ·	12 31 51	0 40 5	78 25 16
* Thittamulla · · · · · · · · · · · · · · · · · ·	11 20 49	2 53 49	77 22 41
TIAGAR	11 44 14	1 10 28	79 6 2
	11 11	1 10 20	

TABLE—continued.

AT C. DV	T -414 - 3-	Longitude from			
Names of Places.	Latitude.	Madras Obser.	Greenwich.		
TIMMAPOOR Dg	12 24 14" N.	1° 2′ 24″W.	79 14' 8" E		
Tirchunkode H. and P	11 22 29	2 20 59	77 55 31		
TIREKEARA Fort	13 42 34	4 26 20	75 50 10		
Terikitchcoonum H. and P	12 36 37	0 11 17	80 5 13		
* Tirtapully H	13 2 25	2 21 55	77 54 35		
Trinomallee H	12 14 30	1 11 32	79 4 58		
P	12 13 53	1 10 46	79 5 44		
TTIPPASOOR Fort N. Face	13 8 36	0 22 22	79 54 8		
* Trivandeporum	11 44 45	0 32 10	79 44 20		
Trivilloor P	13 8 37	0 20 19	79 56 11		
Undar Ghaut (Peak)	13 20 32	5 10 45	75 5 45		
Unganamulla Dg	12 38 4	1 58 49	78 17 41		
* Ungargooda	13 1 13	5 13 42	75 2 48		
* Urrumbaucum H.	13 12 5	0 23 53	79 52 37		
VAIPOOR Dg.	12 8 44	1 25 24	78 51 6		
VANDIWASH H. and P.	12 32 7	0 38 49	79 37 41		
Fort	12 30 32	0 38 47	79 37 43		
VANIAMBADDY	12 40 19	1 38 28	78 37 2		
Veer Rajenderpett H. and P	12 12 31	4 26 47	75 49 43		
VELLORE Dg	12 54 59	1 5 45	79 10 45		
VELLORE FORT G. P	12 55 20	1 7 15	79 9 15		
* Vellengcaud	12 20 41	0 18 47	79 57 13		
VENKETTYGHERRY Fort	13 0 2	1 45 50	78 30 40		
Verabud'r Dg	12 23 20	2 8 41	78 7 49		
VILLANOOR P	11 54 44	0 29 35	79 46 55		
WALLAJABAD Commandg. Officer's ho.	12 47 56	0 25 25	79 51 5		
WALLAJAPETT Mosque	12 55 13	0 54 8	79 22 22		
WHOLY HONOOR FORT	13 59 7	4 34 22	75 42 8		
* Womootoor H	12 4 55	3 22 1	76 54 29		
* Woorachmulla	11 28 37	2 33 43	77 42 47		
* Wooritty H	12 22 41	0 34 16	79 42 14		
Woos Dg.	12 18 30	5 09 48	75 06 42		
Wurrelcondah H. and P	13 38 12	2 28 23	75 48 07		
Wuss Dg	13 47 23	3 58	76 18 30		
Yaelmatoor H	11 12 06	2 30 12	77 46 18		
YAENIKUL Dg.	14 00 58	3 27 16	76 49 14		
Yamagherry H. and P.	12 48 46	3 12 19	77 4 11		
YEGGOONDAH Dg.	13 16 41	2 59 46	77 16 44		
Yerracondah (Mysoor)	12 52 14 .26	1 58 25	78 18 05		
Yerracondah (Ceded Districts)	13 54 59	2 36 05	77 40 25		

ELEVATIONS and Depressions, contained Arcs, terrestrial Refractions, together with the heights above the level of sea, of all the principal Stations.

1. Stations lying in the nearest direction between the two seas, commencing with the S. end of the base near St. Thomas's Mount, whose perpendicular height above the low water mark is 18.7 feet.

Sm. m. o.v.o m	STATIONS AT Stations Observed. Apparent		Cont.	Refract	Elevations above the Sea.	
STATIONS AT	Stations Observed.	En & Dn	- Co	Ref	Stations.	Heights.
	Perambauk Hill S. end of the Base			1 8	Perumbauk ····	272.9
Pcrumbauk · · · · Mullapode · · · ·	Mullapode · · · · Perumbauk · · · ·	0 06 18 E. 0 15 40 D.	10 41	1 1 6	Mullapode · · · ·	48,1.2
Carangooly · · · ·	Carangooly Hill Mullapode · · · ·	0 09 20 D.	5 23 31	1 16	Carangooly · · · ·	434.3
Wooritty Hill	Wooritty Hill Carangooly Hill	0 10 25 D.	15 39	1 1 ō	Wooritty ·····	552.7
Permacoil Hill	Permacoil Hill Wooritty Hill	0 01 38 D.		1 2 2	Permacoil	484.5
Maillacherry	Maillacherry · · · Permacoil · · · ·	0 26 47 D.	36	1 19	Maillacherry	1140.8
Karnatighur····	Karnatighur · · · · · · · · · · · · · · · · · · ·	0 57 03 D.	35 21	1 1 0	Karnatighur····	3204.0
	Karnatighur····	0 08 36 E		1 2 4	Kylasghur · · · ·	2766.2
Yerracondah	Yerracondah Kylasghur	0 28 13 D	46 33	17	Yerracondah	3396.9
Savendroog · · · ·	Savendroog · · · · Yerracondah · ·	0 29 50 D	57 50	ᆉ	Savendroog ····	4004.9
Mullapunnabetta	Mullapunnabetta Savendroog · · · ·	0 19 41 D	$\int 58.52$	1 5	Mullapunnabetta	3406.7
Koondhully Hill	Koondhully Hill Mullapunnabetta	0 30 36 D	1 > 3/4 1/4	1 16	Koondhully	4366.3
Bullamully		0 31 46 E	1 > 4(1) 5%	17	Bullamully	774.5
Bullamully · · · · Kudapoonabetta	Kudapoonabetta Bullamully · · · ·	0 14 15 E	. 3 6	1 2	Kudapoonabetta	318.7
Eedgah Station	Eedgah Station Kudapoonabetta	0 33 29 E		17	Eedgah Station	146.7
Ecdgah Station Stat. on the Beacl	Stat. on the Beach Eedgah Station	0 58 53 D 0 56 36 E	1 39		Stat. on the Beach	22.6
The station on the	he beach above th	e low-water	mark by m	eas	urement	14.0
			Differen	ce	or error·····	8.6

2. Stations not lying in the nearest direction between the two seas, and commencing from Kylasghur.

	5 0				
				-	Elevation above the Sea.
STATIONS AT	Stations Observed.	Apparent. E ⁿ & D ⁿ	Cont.	Refra	and the seasons and the seasons are seasons and the seasons are seasons as a season are se
		E" & D"	PC	ĸ	Stations. Heights.
				-	
	2 11	00 01/ 00//D	· .		feet.
	Patticondali		28' 6'	16	Patticondah 2942.7
Patticondah			}	1.0	3,721,
	Bodeenulla · · · ·		24 53	16	Bodeemulla · · · 1646.6
	Patticondah · · · · · Rymandroog · · ·		3		
		0 29 9 D.	33 4	20	Rymandroog . 4226.8
	Nundydroog		,		
	Rymandroog		18 54	Ţ9	Nundydroog · 4856.8
Nundydroog	1_*		107 10		2010.0
Devaroydroog	Nundydroog		27 40	17	Devaroydroog · · 3940.2
Yerracondah	Tirtapully	0 16 9 D	} 25 4	1	Tirtapully 3182.9
Tirtapully Hill			525 4	24	thtapuny 5162.9
	Bonnairgottalı		22 49	1,	Bonnairgottah · 3305.1
Bonnairgottah	Tirtapully Hill	0 13 20 D.	1 22 .2	21	Somming of the state of the sta
	S. end of the Base		7 11	1	S. end of Base 3023.6
	Bonnairgottah		3		@ -
	Bandhullydroog Savendroog · · · ·		42 59	$\frac{1}{17}$	Bundhullydroog 4254.5
	Ponnassmulla		13		
	Deorabella		28 47	17	Ponnassmulla 4928.3
and the same of th	Paulamulla ····		3		
	Ponnassmulla		27 40	T 9	Paulainulla ··· 4958.8
	Woorachmulla · ·		13 18	1	Woorachmulla . 1472
	Paulamulla · · · ·		313 10	25	Woorachinana - 114/2
	Deorabetta		} 11 35	1	Deorabetta 3408
	Bonnairgottah		§ 11 00	16	Deorabetta 111 5400
	Shenninulla		20 7	1	Shennimulla 788.6
Shennimulla	Woorachmulla · · N.W. end of Base	0 17 58 D. 0 48 13 D.	}	20	
N W end of the R	Shennimulla	0 40 15 E	9 21	14	N. W. end of Bas 1060.3
	Puchapolliam)		
	Shennimulla		8 9 57	$\frac{1}{14}$	Puchapolliam · 1010.4
N.W. end of the B	S. E. end of Base	0 16 26 D.	7		
S. E. end of the B.	N.W. end of Base	0 · 12 16 E	5 19	19	i. E. end of Base 925.5
Bonnairgottah	Dodagoontali	0 18 10 D.	11 40	1	Dodagoontah . 3037.9
Tirtapully Hill	Allasoor Hill	0 1 40 D.	} 17 16		Allasoor Hill . 3380.6
Aliasoor Hill	Tirtapully	0 14 38 D.	517 10	35	11111 1 5380.0
Allasoor Hill	Kulkotali		15 34	1	Kulkolah · · · · 3406.6
Kulkotah	Allasoor Hill		1.00	28	7.00.0
Yerracondal	Kulkotah	0 23 45 D. 0 2 30 D.	29 54	1	Yerracondalı · 2848
Yerracondah	Bomasundrum	0 46 2 D.	13		
Bomasundrum	Yerracondah	0 36 19 E.	11 9	$\frac{1}{1}$	Bomasundrum · · 2037.7
	Paughur		13		6
Paughur · · · · ·	Yerracondah	0 15 35 D.	24 34	1	Panghur · · · · 3052.6
Savendroog · · · ·	Cheelkul	0 26 33 D	24 7	1-	Cheetkul 3329.3
		1		1	
	-				

TABLE-CONTINUED.

*		,			
STATIONS AT	Stations Observed.	Apparent	Cont.	Refract.	Elevations above the Sea.
STATIONS AT		En. & Dn.	Š Š	Ref	Stations. Heights.
Chootkul Hill	Bailippee · · · · ·	00 95' 34" D	2		feet.
Bailippee	Cheetkul · · · · ·	0 6 56 E.	19' 52"	$\frac{1}{31}$	Bailippee · · · · · 2760.6
	Kumbetarene		3		
	Bundhully		36 56	18	Kumbetarine 5548.6
		0 29 27 D.	3		
		0 6 13 D.	39 21	21	Mysoor Hill · · · · 3446.6
		0 0 11 D.	3		
	Mysoor Hill		34 14	17	Bettatipoor 4349.7
		0 5 6 E.	3		
			29 37	16	Bettatipoor · · · · 4347.3
Bettatipoor Hill	Mullapunnabetta		3		
	Bomanelly		29 30	$\frac{1}{30}$	Bomanelly 3142.3
_	Mullapunnabetta		3		
Bomanelly			28 46	1	Daesauneegooda 3804.1
Daesauneegooda	Bomanelly · · · ·		3		
Daesauneegooda	Hannabetta · · · ·		25 54	1	Hannabetta · · · · 3711.1
Hannabetta · · · ·	Daesauneegooda		3		
Mullapunnabetta		0 7 3 D.	52 42	1	Balroyndroog . 4998.9
	Mullapunnabetta		3	~ .	
Bettatipoor · · · ·	Taddiandamole	0 8 15 E.	32 59	1	Taddiandamole 5681.3
	Bettatipoor · · · ·)		
Taddiandamole	Mount Dilli		26 27	17	Mount Dilli 804.7
Kunduddakamully		1 17 19 E.	24 34		Kunduddakamully 1856.2
	Baekul · · · · · ·		11 33	1	Baekul · · · · · 86.7
	Kunduddakamully		1)		
	Kumoor Hill		11 48	1	Kunnoor · · · · 258.9
	Bullamully		13		
	Soobramanee		4 32		Soobramanee · 5583.5
	Koondoor Hill.		15 54	1	Koondoor Hill . 3844.5
	Koondhully)	1	
	Kudapoonabetta		9 52		Meejar Hill · · · · 651.9
Meejar Hill	Booggargooda · ·	0, 1 16 D.	3 59	1	Booggargooda · 654.9
Booggargooda	Meejar Hill · · · ·		13	1	
Stat. on the Beech	Kooliebogooda	0 14 39 E.	1> 0. 5	1	Kooliebogooda 200.5
*Aooliebogooda	Stat. on the Beach	0 17 55 D.	3	1	
		-	-	1	4





An Account of the Male Plant, which furnishes the Medicine generally called Columbo, or Colomba Root.

Member of the Medical Board of Fort St. George.

KALUMB of the Africans.

COLOMBA, or COLUMBO of the Shops.

It is spelt Kalumbo by the Portuguese, in whose language the o is mute, and from this the name originated, by which this valuable root is known in Europe. It is a staple export of the Portuguese from Mozambique, and from the quantity exported, it is remarkable that the place of its growth, should have been so long unknown or doubtful to the rest of Europe.

It is never cultivated, but grows naturally, and in abundance, in the thick forests, that are said to cover the coast about Oibo, and Mozambique, and inland about 15 or 20 miles. The roots are dug up in the month of March, the dry season; or when the natives are not employed in agriculture; not the original root, which is perennial, but offsets from its base, and that of sufficient size, yet not so old as to be full of fibres, which render it unfit for commerce.

This root is in high estimation among all the Africans, even far removed from Mozambique, for the cure of dysentery, which is frequent among them; for venereals; for all complaints of long standing; in powder for the cure of ulcers, and as a remedy for almost every disorder.

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Soon after it is dug up, the root is cut into slices, strung on cords, and hung up to dry in the shade. It is deemed merchantable, when, on exposure to the sun, it breaks short; and of a bad quality when it is soft, or black.

I AM indebted for the above account of the columbo root, to Mons. FORTIN; who, when at Mozambique, purchasing it as an article of trade, procured an entire offset from the main root, of a larger size than usual; which he brought with him to Madras, in September 1805; and presented it to Doctor James Anderson, the Physician General; who considered it a valuable present to himself, and a great acquisition to India.

This root was cylindrical, somewhat flattened on the opposite sides; about 15 inches in length, a part being broken off; and between 3 and 4 inches in diameter; outwardly the common colour of columbo, but on breaking the surface, which is covered by a thin, tender, brownish pellicle, of a fine yellow.

THE root being succulent, and heavy, I planted it horizontally in a large box, filled with garden mould, where, in about a fortnight, it shot out two stems from the end that had been broken off from the parent root, but from not being vigorous, no flowers were then produced; and in about six months, from the time it had been planted, the stems withered down to the ground.

The root was then carefully taken up, which was not altered in size, or appearance, but from the end opposite to where the stems had shot out several fusiform roots, or sessile tubers, had grown, as represented in the accompanying drawing, (Fig. 2) These had evidently suffered from confinement in the box; none of the roots were then separated, and the whole was deposited in a cool room,

and covered with a moist sand; where in about two months, the old root began again to throw out several buds from the same end as before. It was now planted in the ground, when one more vigorous shoot, which grew rapidly, soon destroyed the others; and in a month this shoot produced male flowers only, nor after the strictest search, could any other be found on the plant, so that the genus is as yet uncertain.

This stem, like the former, withered in six months, when the roots were dug up, and found considerably larger, but not much altered in shape, nor had any of them attained a size to be compared with the original. There was only the addition of one new lateral root or branch, from this second year's growth. As it was supposed that these roots would now vegetate, they were detached; which has been unfortunate, as several months have now elapsed, and no buds have formed: they are however still very fresh, and may yet grow. From this it appears that only large roots are fit for planting out.

From the male flowers, and habit of the plant, the columbo seems to belong to the natural order of Sarmentaceæ Linn. or Menisperma of Jussieu. The following description may help to decide.

. PLANTA Herbacea.

Radix perennis, ramosa; rami fusiformes.

CAULIS annuus, post sex, aut septem menses marcescens, volubilis, simplex, teres, pilosus, crassitudine pennæ.

Folia alterna, petiolata, semipedalia et majora, quinqueloba, quinquenervia; lobis integerrimis, acuminatis.

Petioli teretes, pilesi, basi reflexi, folio paulo breviores,

MASCULI Flores.

RACEMI axillares, solitarii, compositi, pilosi, folio breviores. Pedunculi partiales alterni, floribus sessilibus.

BRACTEÆ lanceolatæ, ciliatæ, deciduæ.

CALYX Perianthium hexaphyllum; foliolis æqualibus, tribus exterioribus, tribus interioribus; oblongis, obtusis, glabris.

Corolla hexapetala, minuta, Petala cuneato-oblonga, concava, carnosa, obtusa, stamina ambientia.

STAMINA, Filamenta sex, covolla paulo longiora. Antheræ quadrilobæ, quadriloculares. Pistillum nullum.

EXPLANATION OF THE FIGURES.

- Fig. 1. The extremity of the shoot that flowered in 1807, rather smaller than the natural size.
 - 2. The whole root, about one-third of the natural size only.
 - 3. One of the bracteæ.
 - 4. The underside of one of the flowers.
 - 5. The upperside of the same. These three are magnified.
 - 6. One of the petals more magnified than the last three.
- 7. The underside of one of the stamina, in the enlarged apex of which the four polliniferous pits are seen.

On SANSCRIT and PRA'CRIT POETRY.

BY HENRY THOMAS COLEBROOKE, ESQ.

The design of the present essay is not an enumeration of the poetical compositions current among the *Hindus*, nor an examination of their poetry by maxims of criticism recognized in *Europe*; or by rules of composition taught in their own treatises of rhetorick; but to exhibit the laws of versification, together with brief notices of the most celebrated poems in which these have been exemplified.

An inquiry into the prosody of the ancient and learned language of Indian will not be deemed an unnecessary introduction to the extracts from Indian poems, which may be occasionally inserted in the supplementary volumes of Asiatick Researches: and our transactions record more than one instance of the aid which was derived from a knowledge of Sanscrit prosody, in decyphering passages rendered obscure by the obsoleteness of the character, or by the inaccuracy of the transcripts *. It will be found similarly useful by every person who studies that language; since manuscripts are in general grossly incorrect: and a familiarity with the metre will frequently assist the reader in restoring the text where it has been corrupted. Even to those, who are unacquainted with the language, a concise explanation of the Indian systemof prosody may be curious, since the artifice of its construction is peculiar, and not devoid of ingenuity:

^{*} Vol. I. p. 279. Vol. H. p. 389.

and the prosody of Sanscrit will be found to be richer than that of any other known language, in variations of metre, regulated either by quantity or by number of syllables, both with and without rhyme, and subject to laws imposing in some instances rigid restrictions, in others allowing ample latitude. I am prompted by these considerations to undertake the explanation of that system, premising a few remarks on the original works in which it is taught, and adding notices of the poems from which examples are selected.

THE rules of prosody are contained in Sútras or brief aphorisms, the reputed author of which is PINGALANA'GA, a fabulous being, represented by mythologists in the shape of a serpent; and the same, who, under the title of PATANJALI, is the supposed author of the Mahábháshya, or great commentary on grammar, and also of the text of the Yóga s'ástra*; and to whom likewise the text or the commentary of the Jyótish annexed to the Védas \$\display\$, appears to be attributed. The aphorisms of PINGALA'CHA'RYA, as he is sometimes called, on the prosody of Sanscrit (exclusive of the rules in Prácrit likewise ascribed to him), are collected into eight books, the first of which allots names, or rather literal marks, to feet consisting of one, two or three syllables. The second book teaches the manner, in which passages of the Védas are measured. The third explains the variations in the subdivision of the couplet and stanza. The fourth treats of profane poetry, and especially of verses, in which the number of syllables, or their quantity, is not uniform. The fifth, sixth and seventh exhibit metres

^{*} Or Sánc'hya system of philosophy; distinguished from that of CAPILA.

[†] In the subscription to the only copy of this commentary, which I have seen, it is ascribed to Seshanaga; but, in the body of the work, the commentator calls himself Somacara.

of that sort which has been called monoschemastic, or uniform, because the same feet recur invariably in the same places. The eighth and last book serves as an appendix to the whole, and contains rules for computing all the possible combinations of long and short syllables in verses of any length.

This author cites earlier writers on prosody, whose works appear to have been lost: such as Saitava, Craushtica, Ta'ndin, and other ancient sages, Ya'sca, Ca's'yapa. &c.

PINGALA's text has been interpreted by various commentators; and, among others, by Hela'yud'ha bhat't'a, author of an excellent gloss entitled Mrita sanjivini*. It is the work on which I have chiefly relied. A more modern commentary, or rather a paraphrase in verse, by Na'ra'yan'a bhat't'a ta'ra', under the title of Vriilocti ratna, presents the singularity of being interpreted throughout in a double sense, by the author himself, in a further gloss entitled Parieshá.

THE Agnipurán'a is quoted for a complete system of prosody †, founded apparently on Pingala's aphorisms; but which serves to correct or to supply the text in many places; and which is accordingly used for that purpose by commentators. Original treatises likewise have been composed by various authors ‡: and among others by the celebrated poet Ca'lida'sa. In a short treatise en-

^{*} I possess three copies of it; two of which are apparently ancient: but they have no dates.

[†] It is stated by the authors, who quote it, (NARAYANA BHATTA and others,) to be an extract from the Agni purana: but I have not been able to verify its place in that Purana.

[‡] Such are the Vánibhúshana, Vritta-derpana, Vritta-caumudi, and Vritta-retnúcara, with the Ch'handó-manjari, Ch'handó-mártanda, Ch'handó-málá, Ch'handó-niviti, Ch'hand -govinda, and

titled S'ruta bód'ha, this poet teaches the laws of versification in the very metre to which they relate: and has thus united the example with the precept. The same mode has been also practised by many other writers on prosody; and, in particular, by Pingala's commentator Na'ra'yan'a bhat't'a; and by the authors of the Vritta Retnácara and Vritta derpan'a.

CA'LIDA'SA'S S'ruta bód ha exhibits only the most common sorts of metre, and is founded on PINGALA'S Prácrit rules of prosody; as has been remarked by one of the commentators * on the Vritta Retnácara.

The rules, generally cited under the title of *Prácrit Pingala*, have been explained in a metrical paraphrase, teaching the construction of each species of metre in a stanza of the same measure, and subjoining select examples. This *Prácrit* paraphrase, entitled *Pingala vritti*, is quoted under the name of Hammíra †, who is celebrated in more than one passage given as examples of metre: and who probably patronised the author. It has been imitated in a modern *Sanscrit* treatise on *Prácrit* prosody entitled *Vritta muctávalí* †; and has been copiously explained in a *Sanscrit* commentary named *Pingala pracása* §.

several tracts under the title of Vritta-muetávali, besides treatises included in works on other subjects. For example Varahamihira's system of astrology, which contains a chapter on prosody.

The Vritta-retnácara CEDARA BHATTA, with its commentaries by DIVACARA BHATTA, NARAYANA BHATTA and HARI-BHASCARA, has been the most consulted for the present treatise. The Vritta-derpana, which relates chiefly to Prácnit prosody, has been also much employed.

^{*} Divacara bhatta."

[†] In the commentary on the Vrittocli-ratna.

[†] The author Durgadatta was patronised by the Hindúpati princes of Bundéle'hand. The examples, which like the text are Sanscrit in Prácrit measure, are in praise of these chieftains.

[§] By VISWARATHA.

Though relative to Prácrit prosody, the rules are applicable, for the most part, to Sanscrit prosody also: since the laws of versification in both languages are nearly the same.

THE Prácrit, here meant, is the language usually employed, under this name by dramatick writers; and not in a more general sense of the term, any regular provincial dialect corrupted from Sanscrit. HE'MACHANDRA, in his grammar of Prácrit, declares it to be so called because it is derived from Sanscrit*.

Accordingly his and other grammars of the language consist of rules for the transformation of Sanscrit words into the derivative tongue: and the specimens of it in the Indian dramas, as well as in the books of the Jains, exhibit few words which may not be traced to a Sanscrit origin. This is equally true of the several dialects of Prácrit: viz. S'auraséní or language of S'uraséna,† and Mágad'hí or dialect of Magadha; which according to grammarians, who give rules for deducing the first from Sanscrit, and the second from the first, or both from Sanscrit, are dialects nearly allied to Prácrit, and regularly formed by permutations, for which the rules are stated by them. The same may be

^{*} SEE PLATE A. Fig. a.

[†] CULLUCA BHATTA (on MENU 2. 19.) says, that Surasina is the country of Mathura.

[†] Cleata or Bihar. But it does not appear, that either this, or the preceding dialect, is now spoken in the country, from which it takes its name. Specimens of both are frequent in the Indian dramas.

 $[\]S$ $V_{\Lambda RARUCHI}$, and his commentator Bhamaha.

HEMACHANDRA, who, after stating the special permutations of these dialects as derived from Sanscrit, observes in both places, that the rest of the permutations are the same with those of Pracrit.

said of the Pais'áchi, as a language, (and distinguished from the jargon or gibberish which either dramatick writers, or actors exhibiting their dramas, sometimes
put into the mouths of demons; for the grammarians of Prácrit teach the
manner of forming the Pais'áchi* from the dialect called S'auraséni.

That
remark may be also extended to Apabhrans'a as a fixed language partaking of
Prácrit and S'auraséni, but deducing many terms immediately from the Sanscrit
under rules of permutation peculiar to itself.

**

THE affinity of these dialects of *Prácrit* to the *Sanscrit* and to each other is so great, that thy reeciprocally borrow, notwithstanding their own particular rules, terms permuted in the manner of other dialects, and even admit, without alteration, words inflected according to the *Sanscrit* grammar. § They may be, therefore, considered as dialects of a single language, the *Prácrit* or derivative tongue; so termed with reference to *Sanscrit*, from which it is derived.

Besides these cognate dialects, the dramatick writers introduced other languages as spoken by different persons of the drama. Such, according to the enumeration in the Sâhitya derpan'a ||, are the Dâcshin'âtyâ, ¶ or language used in the south of India; the Drâvi'di or dialect of the southern extremity of the penin-

Or language of the Pistáchas. [See PLATE A. Fig. b.] BHAMAHA on VARARUCHI.

[†] VARARUCHI and HEMACHANDRA. The last mentioned author notices a variation of this dialect under the name of Chulicápaisáchi; which differs very little from the proper Paisáchi.

[†] It is taught under this name by HEMACHANDRA, among other dialects of Prácrit. But the name usually signifies ungrammatical language.

[§] HEMACHANDRA ad finem.

¹¹ Ch. 5.

[¶] Some with Vaidarbhi, according to the commentator of the Súhitya derpana. The country of Viderbha is said to be the modern Berar proper.

sula; the Avanticá (probably the language of Málavá);* the Ard ha mágad hí, distinguished from Mágad hí properly so called; the Báhlicábháshá, perhaps the language of Balk in the Transoxana); † the Maháráshtrí or dialect of the Marhattas; the Práchyá or language employed in the east of India; ‡ the Abhírí and Chándálí, which from their names, seem to be dialects used by herdsmen and by persons of the lowest tribes; the Sáncará and Sábari, concerning which nothing satisfactory can be at present suggested; and generally any provincial dialect.

It is not to be supposed, that the $Pr\'{a}crit$ rules of prosody, as taught by Pingala, are suited to all these languages: but it is probable, that they were framed for the same dialect of $Pr\'{a}crit$, in which they are composed; and they are applicable to those cognate dialects, which differ much less from each other (being very easily confounded), than they all do from Sanscrit, their acknowledged common parent. Generally those rules may be considered applicable to all the languages comprehended under the designation of $Pr\'{a}crit$, \S as derivative from Sanscrit; and certainly so to the vernacular tongues of the ten nations of Hindus now inhabiting India. A writer on Sanscrit prosody $\|$ pronounces

^{*} Avanti is another name of Ujjayani.

[†] Báhlica or Bahlica (for the word is spelt variously (is a country famous for the breed of horses. Amera. 2. 8. 45. It appears to be situated north of India; being mentioned in enumerations of countries, with Turushca, C'hasa, Casmira, &c. (Hemachandra. 4. 25. Tricanda s'ésha.2. 1. 9.)

[†] The commentator on the Sahitya derpana (RAMA CHARANA), interprets Prachya, by Gaudiya; meaning, no doubt, the language of Bengal. He was himself a native of this province; and his work is modern, being dated Saca 1622 (A. D. 1700.)

[§] As. Res. VII. p. 219.

^{||} NARAYANA BHATTA in a commentary on the Vritta retnacara written in Sambat 1602 (A. D. 1546.)

the various kind of metre to be admissible in the provincial languages, and has quoted examples in those of Máháráshíra', Gurjara and Cányacubja. The last mentioned, which is the same with the old Hindi, as is demonstrated by this specimen of it, might furnish very numerous instances, especially the Hindi poetry of CE'SAVADA'SA*, who has studiously employed a great variety of metre. Some examples will accordingly be quoted from the most distinguished Hindi poets. The sacred books of the Sikhs, composed in a Penjábi dialect, which is undoubtedly derived from the ancient Sáreswata†, abound in specimens of such metre. The language of Mit'hilá, and its kindred tongue, which prevails in Bengal, also supply proof of the aptitude of Sanscrit prosody: and the same is probably true of the other four national languages ‡.

Pingala's rules of Sanscrit prosody are expressed with singular brevity. The artifice, by which this has been effected, is the use of single letters to denote the feet of the syllables. Thus L. the initial of a word signifying short (lag'hu), indicates a short syllable. G. for a similar reason, intends a long one. The combinations of these two letters denote the several dissyllables: lg signifying an iambic; gl a trochæus or choreus; gg a spondee; ll a pyrrichius. The letters, M.Y.R.S.T.J.Bh. and N, mark all the trisyllabical feet, from three long syllables to as many short. A Sanscrit verse is generally scaned by these

^{*} Contemporary with JEHANGIR and SHAH JEHAN.

[†] The remaining Sareswata Brahmanas inhabit chiefly the Penjab.

[‡] Those of Dravida, Carnataca, Telinga, and Odra or Udiya. I omit Gaura. The Brahmanas, bearing this national designation, are fettled in the districts around Delhi: but, unless theirs be the language of Mai'hura, it is not easy to assign to them a particular national tongue.

[§] Being the initial of guru, long.

last mentioned feet; with the addition of either a dissyllable or a monosyllable at the close of the verse, if necessary. This may be rendered plain by an example taken from the *Greek* and *Latin* prosody.

Scanned in the *Indian* manner, a phaleucian verse, instead of a spondee, a dactyl and three trochees, would be measured by a molossus, an anapæst, an amphibrachys and a trochee; expressed thus, m. s. j. g. l. A sapphic verse would be similarly measured by a cretic, an antibacchius, an amphibrachys and a trochee; written r. t. j. g. l.

To avoid the two frequent use of uncommon terms, I shall, in describing the different sorts of Sanscrit metre, occasionally adopt a mode of stating the measure more consonant to the Greek and Latin prosody, in which the iambic, trochee, and spondee, dactyl, anapæst, and tribrachys are the only feet of two or three syllables which are commonly employed.

In Prácrit prosody the variety of feet is much greater: verses being scanned by feet of different lengths from two mátrás, (two short syllables or one long) to three, four, five and even six mátrás or instants. These various descriptions of feet have been classed, and denominated, by the writers on this branch of prosody.

THE verse, according to the Sanscrit system of prosody, is the component part of a couplet, stanza or strophe, commonly named a S'lóca, although this term be sometimes restricted to one sort of metre, as will be subsequently shown on the authority of Ca'lidasa. The stanza or strophe consists usually of four

verses denominated páda; or, considered as a couplet, it comprises two verses subdivided into pádas or measures. Whether it be deemed a stanza or a couplet, its half, called ard'has'lóca, contains usually two pádas; and in general the pauses of the sense correspond with the principal pauses of the metre, which are accordingly indicated by lines of separation at the close of the s'lóca and of its hemistich. When the sense is suspended to the close of a second S'lóca, the double stanza is denominated Yugma; while one, comprising a greater number of measure, is termed Culaca. In common with others, I have sometimes translated s'lóca by "verse," or by "couplet;" but, in prosody, it can only be considered as a stanza, though the pauses are not always very perfectly marked until the close of the first half: and in conformity to the Indian system, it is generally treated as a tetrastich, though some kinds of regular metre have uniform pauses which might permit a division of the stanza into eight, twelve, and even sixteen verses.

In Prácrit prosody, a greater variety is admitted in the length of the stanza; some species of metre being restricted to a true couplet, and others extended to stanzas of six and even sixteen verses: independently of pauses, which, being usually marked by rhyme, would justify the farther subdivision of the stanza, into as many verses as there are pauses. Even in Sanscrit prosody, instances occur of stanzas, avowedly comprising a greater or a less number of verses than four: as three, five, six, &c. But these are merely exceptions to the general rule.

Concerning the length of the vowels in Sanserit verse, since none are ambiguous, it is only necessary to remark, that the comparative length of syllables is determined by the allotment of one instant or mátrá to a short syllable, and two to a long one; that a naturally short vowel becomes long in prosody when it is followed by a double or conjunct consonant;* and that the last syllable of a verse is either long or short, according to the exigence of the metre ‡, whatever may be its natural length.

Sanscrit prosody admits two sorts of metre. One governed by the number of syllables; and which is mostly uniform or monoschematic in profane poetry, but altogether arbitrary in various metrical passages of the Védas. The other is in fact measured by feet like the hexameters of Greek and Latin: but only one sort of this metre, which is denominated A'ryá, is acknowledged to be so regulated; while another sort is governed by the number of syllabic instants or mátrás.

[•] Or by the nasal termed Anuswara, or the aspirate Visarga. By poetical license, a vowel may be short before certain conjuncts (viz. as in Plate A. Fig. c.) This license has been borrow ed from Pracrit prosody, by the rules of which a vowel is allowed to be sometimes short be fore any conjunct, as before the nasal: but instances of this license occur in classical poems with only four conjuncts as above mentioned; and, even there, emendations of the text have been proposed by criticks to render the verse conformable to the general laws of prosody. (See remarks in the Durghat's writti; Cumara.)

[†] This rule of prosody is applicable to any verse of the tetrastichs: but it is considered by writers on rhetorick inelegant to use the privilege in the uneven verses; and they thus restrict the rule to the close of the stanza and of its half, especially in the more rigid species of regular metre.

1. Gan'ach'handas or metre regulated by feet (mátráganā.)

A'RYA' or GA'T'HA'.

The metre, named Aryá, or in Prácrit, Gáhá, from the Sanscrit Gáthá, is measured by feet denominated gan'a, or mátrágan'a, which are equivalent to two long syllables or to four short: it is described as a couplet, in which the first verse contains seven and half feet; and the sixth foot must consist of a long syllable between two short, or else of four short; while the odd feet (1st, 3d, 5th, and 7th) must never be amphibrachys.* In the second verse of the couplet, the sixth foot (for here too it retains that name) consists of a single short syllable. Consequently the proportion of syllabick instants in the long and short verses is thirty to twenty-seven. The same metre has, with some propriety, been described as a stanza of four verses: for it is subdivided by its pauses into four pádas, which have the usual privilege of going to the last syllable, whether naturally long or short, the length required by the metre. The cause is commonly restricted to the close of the third foot; and the measure is in this case denominated Pathyá: but, if the pause be placed otherwise in either verse, or in both of them, the metre is named Vipulá.

A PARTICULAR sort of this measure, deduced from either species above described, is called *Chapalá*; and the laws of its construction require, that the second and fourth feet should be amphibrachys; and that the first foot should be either a spondee or an anapæst; and

^{*} If the rule be violated, the metre is named Gurvini; but this is reprobated by writers on prosody.

[†] As Res. Vel. Il. p. 390.

[‡] Vritta muctavali.

the fifth, a dactyl or a spondee. The first verse of the couplet, the second or both, may be constructed according to these rigid rules: hence three varieties of this sort of metre.

The regular $A'ry\acute{a}$ consists of alternate long and short verses: but, if the short verse precede the long one, the metre is called Udgiti. If the couplet consist of two long verses, it is named Giti; or of two short verses, Upagiti. Another sort of this metre is named $A'ry\acute{a}$ giti: it is constructed by completing the eighth foot of the regular $A'ry\acute{a}$ *.

This measure admits therefore of eighty principal variations; deducible from the nine sorts abovementioned: for the pause may be placed at the close of the third foot in either verse of each couplet, in both, or in neither; and either verse, both, or neither, may be constructed according to the strict rules of the Chapalá measure; and the verse may consist of seven and a half, or of eight feet; and may be arranged in couplets consisting of verses alternately long and short, or alternately short and long, or else uniformly long, or uniformly short.

THE A'ryá metre is very frequently employed by Indian poets; but works of great length in this measure are not common: it is oftener intermixed with verses of other kinds, though instances do occur of its exclusive use: thus the first and fourth cantos, and most part of the 2d and 3d, in the poem entitled Nalodaya, and the entire work of Go'verd'hana †, are in the A'ryá metre. And so is the brief

^{*} It may be varied by alternating a long and a short verse, or a short and a long one, or by making both verses long.

[†] Consisting of seven hundred (or with the introduction 755) stanzas of miscellaneous poetry; and entitled from the number of stanzas Sapta sati.

text of the Sánc'hya philosophy of Capila, as taught by Is'waracrishn'a *; and the copious treatise of astronomy by Brahmegupta .

THE Nalodaya abovementioned, which is ascribed to the celebrated poet CA'LIDA'SA, is a poem in four cantos, comprising 220 couplets or stanzas ‡; on the adventures of NALA and DAMAYANTÍ: a story which is already known to the English reader §. In this singular poem, rhyme and alliteration are combined in the termination of the verses: for the three or four last syllables of each hemistich within the stanza are the same in sound though different in sense. It is a series of puns on a pathetick subject.

It is supposed to have been written in emulation of a short poem (of 22 stanzas) similarly constructed but with less repetition of each rhyme; and entitled from the words of the challenge with which it concludes, Ghat'a carpara.

[SEE PLATE A. Fig. 1.]

'THIRSTY and touching water to be sipped from the hollow palms of my hands, I swear by the loves of sprightly damsels, that I will carry water in a broken pitcher for any poet by whom I am surpassed in rhymes.'

^{*} Author of the Carica or metrical maxims of this philosophy. Sutras, or aphorisms in prose, which are ascribed to Capilla himself, are extant: but the work of Iswara Crishna is studied as the text of the Sanc'hya (As. Res. Vol. VIII. p. 466.)

[†] Entitled Brahmesphuta sidd'hanta: other treatises, bearing the same or a similar title, are works of different authors.

[‡] Chiefly Arya, with a few anapæstic stanzas (Totaca), and a still smaller number of iambics and trochaics (Pramani and Samani.)

[§] Translated by Mr. Kindersley of Madras, from a tale in the provincial language.

HOWEVER, the epick poem of Ma'G'HA, which will be mentioned more particularly under the next head, contains a specimen of similar alliteration and rhyme; the last fourteen stanzas of the sixth canto, (descriptive of the seasons,) being constructed with like terminations to each half of the stanza. Instances will also be cited from BHA'RAVI'S poem hereafter noticed.

THE following example of a species of the A'ryá metre is taken from the preface of the Nalodaya.

> A'ryá giti (8 feet). [See Plate A. Fig. 2.]

"THE king celebrated under the name of RAMA*, exists, who is conversant with the supreme ways of moral conduct; in whose family, exempt from calamity and enriched with the gems of the earth, dependants flourish." 1.5.

THE next is taken from DAMAYANTI's lamentation on finding herself deserted by her husband NALA. It is in the same species of metre.

26. Tatra, padé vyálínám,
at'ha vibhrántam vané cha dévyá, 'línám
tanu-vrindé vyálínám
tatin dad'háné, tayá'spadé vyálínam.
27. Véga-balá 'pásitayá,
Vényá, Bhaimí yutá lalápá 'sitayá.
" Nripa! sa-calápá 'sitayá
hatwá 'rin, bándhaván cilá 'pási tayá.
28. Sa cat'ham mána-vanánam,
Nyáyavid! ácharasi sévyamána-vanánám,
D'hrita-síma navánám,
Dáránám tyágam, anupamá! 'navanánám.

^{*} RAMA RAJA, by whose command the poem was composed. So the commentators remark: but it remains uncertain who he was, or where he reigned.

28. Para-critam état twénah [tu énah]
Samarámi, tan na smritó 'si métattwéna,
Dosha-samétatwêna
pradúshayé ná'tra sambhamé tat twéna! [twa, ina!]"

[SEE PLATE A. Fig. 3.]

'THEN the princess wandered in the forest, an abode of serpents, crowded with trees which resound with the sweet buzz of bees, the resort of flocks of birds. With her dark hair dishevelled through her haste, Bhaimi thus lamented: "King! thou slayest foes? but defendest thy kindred, with thy quiver and thy sword. Unrivalled in excellence and conversant with morality, how hast thou practised the desertion of a wife proud but left helpless in a forest; thus rendering thyself the limit of praise? but I consider this evil to be the act of another; and do not charge thee with it: I do not blame thee, my husband, as in fault for this terror.' 3. 26—29.

In the passage here cited, some variations in the reading, and greater differences in the interpretation, occur: with which it is, however, unnecessary to detain the reader. After consulting several scholia, the interpretation, which appeared preferable, has been selected. The same mode will be followed in subsequent quotations from other poems.

II. Mátrách handas or metre regulated by quantity.

1. VAITA'LI'YA.

ANOTHER sort of metre, regulated by the proportion of mátras or syllabick instants, is measured by the time of the syllables exclusively; without noticing, as in the Ganach'handas, the number of feet. It is therefore, denominated Mátrách'handas, and the chief metre of this kind is named Vaitáliya. It is a tetrastich or strophe of four verses, the first and third containing the time of fourteen

short syllables; and the second and fourth, sixteen. The laws of its construction impose that each verse shall end in a cretic and iambic; or else in a dactyl and spondee *; or, by bacchius †. In regard to the remaining moments, which are six in the odd verses, and eight in the even verses of the strophe, it must be observed as a general rule, that neither the second and third, nor the fourth and fifth moments should be combined in the same long syllable; nor, in the second and fourth verses, should the sixth mátrá be combined with the seventh. That general rule however admits of exceptions: and the name of the metre varies accordingly ‡.

ALTHOUGH the Vaitaliya regularly consist of alternate short and long verses, it may be varied by making the stanza consist either of four short or four long verses; admitting at the same time the exception just now hinted §.

THE following is an example of a stanza composed in a species of this metre:

^{*} This variety of the metre is named A patalica.

[†] Thus augmented, the measure is called Augach'handasica: the whole of the last canto of Magha's epick poem hereafter mentioned is in this metre: and so is the first half of the 13th canto in Bharavi's Ciratarjuniya.

[‡] In the even verses of the strophe, if the 4th and 5th moments be combined in one long syllable, contrary to the general rule abovementioned, the metre is named Prachya vritti: or, in the odd verses, if the 2d and 3d moments be so combined, the metre is denominated Udichya vritti: or the rule may be violated in both instances, at the same time; and the measure then takes she name of Pravrittaca.

[§] A tetrastich, consisting of four short verses of the sort called *Pravrittaea*, is named *Charuhas-ini*: and one comprising four long verses of that description is termed *Aparantica*.

Vaita'liya (Pravrittaca).

Idam, Bharata-vansa-bhúbhritám, sruyatám, sruti-manórasáyanam, pavitram, ad'hicam, subhódayam, Vyása-vactra-cat'hitam, PRAVRITTACAM.

[SEE PLATE A. Fig. 4.]

"LISTEN to this pure, auspicious and pleasing history of the kings of the race of BHARATA as uttered from the mouth of VYASA."

Here, as in most of the examples given by the commentator Hela'Yud'ha, and by other writers on prosody, the name of the metre occurs, but with a different acceptation. Where the stanza has the appearance of being a quotation (as in the present instance), it might be conjectured, that the denomination of the measure was originally assumed from the example; and this conjecture would appear probable, wherever the name (as is frequently the case,) has no radical meaning connected with the subject of metre. But, in many instances, the radical interpretation of the word is pertinent and has obviously suggested its application as a term of prosody; and the stanza, which is given as an example, must therefore have been purposely constructed to exhibit the metre by words in which its denomination is included. This is confirmed by the circumstance of some of the words being incompatible with the measure which they designate: and in such cases the author apologizes on that ground for not exhibiting the name in the example.

THE Vaitaliya metre has been employed by some of the most eminent poets; for instance, in the epick poem of Ma'G'HA, the 16th canto of which is chiefly

in this measure, as the 20th and last canto is in that species of it which is called Aupach'handasica.

The work here mentioned is an epick poem, the subject of which is the death of S'is'upa'la slain in war by Crishn'a: it is entitled S'is'upa'la bad'ha, but is usually cited under the name of its author, whose designation, with praises of his family, appears in the concluding stanzas of the poem. Yet, if tradition may be trusted, Ma'g'ha, though expressly named as the author, was the patron, not the poet. As the subject is heroick, and even the unity of action well preserved, and the style of the composition elevated, this poem is entitled to the name of epick. But the *Indian* taste for descriptive poetry, and particularly for licentious description, has disfigured even this work, which is otherwise not undeserving of its high reputation. The two first cantos and the last eight are suitable to the design of the poem. But the intermediate ten, describing the journey of Crishn's with a train of amorous damsels, from Dwáracá to Indraprasi ha, is misplaced, and in more than one respect exceptionable.

The argument of the poem is as follows. In the first eanto, Na'reda, commissioned by Indra, visits Crishn'a and incites him to war with his cousin, but mortal enemy, S'is'upa'la king of the Chédis. In the second, Crishn'a consults with his uncle and brother, whether war should be immediately commenced, or he should first assist Yud'hisht'hira in completing a solemn sacrifice which had been appointed by him: the result of the consultation is in favour of the latter measure: and accordingly, in the 3d canto, Crishn'a departs for Yud'hisht'hira's capital. In the thirteenth he arrives and is welcomed by the Pa'n'davas. In the following canto, the sacrifice is begun; and, in the next, S'is'upa'la impatient of the divine honours paid to Crishn'a retires with his partisans from the place of sacrifice. A negociation ensues;

which is however ineffectual, and both armies prepare for action. This occupies two cantos. In the eighteenth both armies issue to the field of battle, and the conflict commences. The battle continues in the next canto, which describes the discomfiture and slaughter of S'is'upa'la's army. In the last canto, the king, grown desperate, dares Crishn'a to the combat. They engage, and in the *Indian* manner fight with supernatural weapons. S'is'upa'la assails his enemy with serpents, which the other destroys by means of gigantic cranes. The king has recourse to igneous arms, which Crishn'a extinguishes by a neptunian weapon. The combat is prolonged with other miraculous arms, and finally Crishn'a slays S'is'upa'la with an arrow.

THE following example is from a speech of S'IS'UPA'LA's embassador, in reply to a discourse of S'ATYACI brother of CRISHN'A, at an interview immediately preceding the battle.

[SEE PLATE A. Fig. 5.]

"A low man, poor in understanding, does not perceive his own advantage: that he should not comprehend it when shown by others, is surprising. The wife, of themselves, know the approach of danger, or they put trust in others: but a foolish man does not believe information without personal experience. The proposal, which I made to thee, Crishna, was truly for thy benefit: the generous are ready to advise even their enemies bent on their destruction. Peace and war have been offered at the same time by me; judging their respective advantages, thou wilt choose between them. Yet good advice addressed to those whose understanding is astray, becomes vain, like the beams of the cold moon directed towards lakes eager for the warm rays of the sun." 16. 39—43.

ANOTHER passage of the same poem is here subjoined as a specimen of a different species of this metre. It is the opening of the last canto; where S'1s-

UPA'LA, impatient of the discomfiture of his troops and of those of his allies, dares Crishn'A to single combat.

Aupach'handasica.

[SEE PLATE A. Fig. 6.]

Muc'ham ullasita-tri-rec'ham uchchair bhidura-bhrú-yuga-bhishan'an dad'hánah, Samitav iti vicramán amrishyan, gatabhír, áliwata Chédirát Murárim.

Raising his head, and with a countenance terrible by its forked brow and wrinkled forehead, the king of the *Chédis*, impatient of the prowess thus displayed in battle, banished fear, and challenged the foe of Mura to the fight.' 20.1.

A further example of the same metre is the second stanza of the following extract from the Cira'ta'juniya* of Bha'raví. The remaining stanzas exhibit variety of measure, with two instances of singular alliteration.

The subject of that celebrated poem is Arjuna's obtaining celestial arms from S'IVA, INDRA and the rest of the gods, to be employed against Duryo'd'HANA. It is by a rigid observance of severe austerities in the first instance, and afterwards by his prowess in a conflict with S'IVA (in the disguise of a mountaineer), that Arjuna prevails. This is the whole subject of the poem; which is ranked with the Cumára and Raghu of Ca'lida'sa, the Naishad'hiya of SrIHARSHA, and Ma'GHA's epick poem, among the six excellent compositions in Sanserit. The sixth is the Méghadúta also ascribed to Ca'lidasa; and, on ac-

^{*} Arjuna and the mountaineer. Cirata is the name of a tribe of mountaineers considered as barbarians.

count of its excellence, admitted among the great poems (Maha'cavya), not-withstanding its brevity.

[SEE PLATE A. Fig. 7.]

THE stanzas, which contain alliteration, are here copied in Roman characters.

18. Iha durad'higamaih

Cinchid évágamaih

Satatam asutaram

Varn'ayantyantaram.

19. Amum ativipinam

Véda digvyápinám

Purusham iya param

Padmayónih param.

20. Sulabhaih sadà nayavatá 'yavatá

Nid'hi-guhyacad'hipa-ramaih paramaih

Amuná d'hanaih cshitibhrita 'tibhrità

Samatítya bháti jagatí jagati.

'THEN ARJUNA, admiring the mountain in silent astonishment, was respectfully addressed by his conductor, Cuve'ra's attendant: for even loquacity is becoming in its season.'

"This mountain with its snowy peaks rending the cloudy sky in a thousand places, is, when viewed, able to remove at once the sins of man. An imperceptible something within it, the wise ever demonstrate to exist by proofs difficultly apprehended. But Brahma' alone thoroughly knows this vast and inaccessible mountain, as he alone knows the supreme soul. With its lakes overspread by the bloom of lotus, and overshadowed by arbours of creeping plants whose foliage and blossoms are enchanting, the pleasing scenery subdues the hearts of women who maintained their steadiness of mind even in the company of a lover. By this happy and well governed mountain, the earth, filled with gems of easy acquisition and great excellence delightful to the god of riches, seems to surpass both rival worlds *." 5. 16—20.

^{*} The first and fourth stanzas, in this quotation, are in the Lrutavilambita metre, and the fifth in the Pramita's shara'; which will be both noticed under a subsequent head. The third is in an uncommon measure named Chandrica' or Cshama'.

2. MA'TRA'-SAMACA.

The metre denominated Mâtra'samaca consists of four verses, each of which contains the quantity of sixteen short syllables; and in which the last syllable must be a long one; and the ninth syllabick moment must be in general detached from the eighth and tenth, and be exhibited of course by a short syllable; if the twelfth be so likewise, the metre is distinguished by another name; or if the fifth and eighth remain short, the denomination is again changed. The last sort of metre is varied by deviating from the rule respecting the ninth moment; and another variety exhibits the fifth, eighth, and twelfth moments by short syllables*. These five varieties of the metre called Mâtrâsamaca may be variously combined in the same stanza; and in that case the measure is denominated Padaculaca: a name, which is applied with greater latitude in Pracrit prosody, to denote a tetrastich wherein each verse contains sixteen moments, without any other restriction as to the number and place of the long and short syllables.

A POEM inserted in the first volume of Asiatic Researches † is a specimen of the variety, which this sort of metre admits. In a collection of tales entitled Vétala panchavins'ati, the author S'IVADA'SA has quoted several stanzas of that poem intermixed with others, in which the measure is still more varied: and I

The names of these four varieties are 1st, Vána vásica, which exhibits the 9th and 12th moments by shorts syllables, and 15th and 16th by a long one: the rest being optional. 2dly, Chitrá exhibiting the 5th, 8th, and 9th, by short syllables, the 15th and 16th by a long one, 3dly Upcachitrá, the 5th, 8th short; 9th and 10th long; also 15th and 16th long. 4thly, Vis'loca; 5th, 8th, and 12th short; 15th and 16th long; and the rest indeterminate.

[†] Page 35.

may here remark, that the introduction of rhyme into Sanscrit verse is not peculiar to this anapæstick metre: JAYADE'VA has adopted it with success in several other sorts of lyrick measure; and it is frequent in Sanscrit poetry composed in any species of Pracrit metre.

3. GÍTYA'RYA'.

ANOTHER species of metre regulated by quantity is named Gityáryá. Like the preceding, it is a tetrastich in which each verse consists of sixteen matras or moments; but all expressed by short syllables. In other words the stanza contains sixty-four syllables distributed into four verses. From the mixture of verses of this description, with others consisting exclusively of long syllables, arises another metre distinguished into two sorts according as the first couplet in the stanza consists of short syllables and the second of long; or, conversely, the first long, and the second short *. The Gityáryá may be further varied by making the last syllable of each couplet long, and all the rest short; at the same time reducing both couplets to twenty-nine moments, or the first only to that measure; and the second to thirty-one; or the first couplet to thirty, while the second contains thirty-two *.

4. Pracrit measures.

THE foregoing are all comprehended under the general designation of Jati: and besides these, which are noticed in treatises on Sanscrit prosody, other kinds,

^{*} The mixed metre, in which one couplet of the stanza contains short syllables, and the other long, is termed Sic'ha or Chu'da: if the first couplet contain the short syllables, it is denominated Jyotish; but is called Saumya, or Anangancrid'a, when the first couplet consists of long syllables.

[†] This metre, concerning which authorities disagree, is called Chu'dica or Chulica; or according to the Vritta Ratnacara, Atiruchira.

Pracrit prosody. They enumerate no less than forty-two kinds, some of which comprehend many species and varieties. The most remarkable, including some of those already described as belonging to Sanscrit prosody, are the following, of which instances are frequent in Pracrit, and which are also sometimes employed in Sanscrit poetry.

A STANZA of four verses, containing alternately thirteen and eleven moments (and scanned 6+4+3 and and 6+4+1) is named either Dohá*. (S. Dwipat'ha) or Sorat'tha (S. Saurasht'ra), according as the long verse precedes the short one, or the contrary. This metre, of which no less than twenty three species bear distinct names, (from 48 syllables to 23 long and two short,) is very commonly used in Hindi poetry. As an instance of it, the work of BIHA'RILA'L may be mentioned, which consists of seven hundred couplets (sat sai) all in this measure. It is a collection of descriptive poetry; of which CRISHN'A, sporting with RA'D'HA' and the Gopis, is the hero. The following example is from that celebrated author.

Macarácrita Gópála cé
Cun'd'ala jhalacata cána.
D'hasyó manó hiya gad'ha samara:
D''yód''hi lasata nisána.

[SEE PLATE A. Fig. 8.]

'THE dolphin-shaped ring, which glitters in Go'PA'LA's ear, may be taken for the symbol of Cupid suspended at the gate, while the god is lodged in his heart.'

To understand this stanza, it must be remarked, that the symbol of the *Indian* Cupid is the aquatick animal named *Macara*: (which has in the *Hindu* Zodiack

^{*} Corruptly Dohra.

posing either the deliverer of Arion, or any species of dolphin (as the term is appropriated in systems of natural history), to be meant.

THE Gat'ha or Gaha has been already noticed as a name of the A'rya measure in Pracrit prosody. Including under this as a general designation the seven species of it, with all their numerous varieties, it is no uncommon metre in Pracrit poetry. A collection of amatory verses ascribed to the famous monarch S'A'LIVA'HANA, comprising seven hundred stanzas * and purporting to be a selection from many thousands by the same author, is exclusively in metre of this kind. The introductory verse intimates, that

"Seven hundred couplets (gábás) are here selected out of ten millions of elegant couplets composed by the poet HA'LA'."

HA'LA is a known title of SA'LIVA'HANA, and is so explained both here and in a subsequent passage by the scholiast GANGA'D'HARA BHAT'TA. It is not, however, probable, that he really composed those verses; and it would be perhaps too much to conjecture, that the true author of them was patronised by that monarch whose existence as an *Indian* sovereign has been brought in doubt.

THE metre called Maharashtra (in Pracrit, Marahat't'a) is a tetrastich, of which each verse contains 29 matras, scanned by one foot of 6 and five of 4; with a terminating trochee. It has pauses at the 18th and 29th matras. This measure is evidently denominated from the country, which gives name to the Marahatta nation; as another species, beforementioned, takes its designation from Saurashtra or Sorati'ha*. The circumstance is remarkable.

^{*} From their number, entitled Sat sai.

ANOTHER tetrastich, which it is requisite to notice, is denominated Rola. Each verse contains 24 matras: and this species of metre admits twelve varieties, from 24 short syllables to 11 long and two short, bearing distinct names.

The Shat'padica (Pr. Ch'happäa) is a stanza of six verses: arranged in a tetrastich and couplet; the first termed Cavya, and the second Ullala. In the tetrastich, each verse contains 24 moments (scanned 2+ five times 4+2, or else 6+ four times 4+2) with a pause at the 11th moment; and each verse of the couplet contains 28 moments, with a pause at the 15th. The varieties are extremely numerous, according to the number and the places of the long and short syllables. No fewer than forty-five variations of the tetrastich, and seventy-one of the whole stanza, have separate names. They are distinguished by the number of short and long syllables (from 152 short to 70 long and 12 short in the whole stanza, or from 96 short to 44 long and 8 short in the tetrastich). The following example is extracted from the Pingala-vritti.

Ch'happäa or Shat'padica.

Pind'häu di'd'ha san'n'áha; báha uppara pac'hc'hara daï, Band'hu samadi, ran'a d'haläu. Sámí Hammí baäna laï, Uduu na'ha; paha bhamäu; c'haga rïu sísa hi jháläu. Pac'hc'hara pac'hchara, 't'hélli pélli, pabbaä appáräu. Hammíra cajja Jajjalla bhan'a, cóhád'alá mahu maha jaläu. Sulatána sísa carabála daï, téjji calévara, dïa chaläu.

^{*} The peninsula, between the gulfs of Cambay and Cutch. The name remains, but the boundaries of the province are more restricted than in ancient times. It still, however, includes the remains of Crishna's city of Dwa'rca'; the celebrated temple of Somana't'ha so frequently plundered by the Muhamedans; and the mountain of Girana'ra held sacred by the Jainas no less than by the followers of the Veda.

[SEE PLATE A. Fig. 9.]

JAJJALA, general of HAMMÍRA's forces, taking the field against the Muhammedan emperor, says vauntingly

"I PUT on strong armour, placing barbs on my horse, and taking leave of kinsmen, I hasten to the war. Having received the commands of my master HAMMÍRA, I fly through the sky; I pursue the road; I flourish my scimitar on the head of the foe. Amid the bustle of horse and foot I scale mountains. In HAMMÍRA's cause, JAJJALA declares, The fire of wrath burns within me; laying my sword on the head of the Sultan, and abandoning this corporeal frame, I ascend to heaven."

The emperor, whose death was thus vainly promised to Hammíra, by his braggart general, must have been Sulta'n Muhammed Khu'ní, with whom he is stated to have been contemporary; and who reigned from A. D. 1325 to 1351*. Hammíra was sovereign of Sácambhari, which, with unfeigned deference for the opinion of Captain Wilford on a geographical question, I still think to be Sámbher †: and for this simple reason; that the culinary salt, brought from the lakes of Sa'mbher, is named in Sanscrit, Sa'cambhariya lavana, answering to the Hindi Sa'mbher läun. It is, however, proper to remark, that maps exhibit a place of the name of Sambhere between Ujjayani and Indor.

THE Utcach'ha' is a stanza of six verses, each comprising eleven moments (scanned 4+4+3). It admits eight species from 60 short syllables to 28 long and 10 short.

8

^{*} As. Res. Vol. IX. 192.

[†] As. Res. Vol. VII. p. 511.



वातः दुमारः मह मुरधारी उपाअदीणा हम् एकूणारी। ाहणिश्ंलाट्विषंत्रियारी गतिभविची किलकाहमारी॥

Fig. 4.

विद्याप्रवेगिय ज नाम्मिकिएणस्मिनिकप्रीनिर्त्यय।। अतः नुता व्हेर्विधिविधित्तु निवस्तु मे वेद्धतिनितानेवसः॥

Fig. 5.

प्विचमचातन्ते जगहागे मातार् स्थालनयव्या। क्षांनम्। महिर्मावलामपि स्वते विनी मेवपवि विषयि॥।

Eig. 6.

इ मा म हं बेर् नतावका धियंविचि च रूपाः खलुचित्रवृत्तयः। विचिन्तय न्याभवरापरंपरां जनिनचेतः प्रसमंममाधयः ॥ ३७॥ पुराधिरु ७: श यनमहाधनंविवाध्य सेयः सुनिगोतिमङ्ग लै:। अट् भट्नीमधिए यास स्थालों जहासिनिट्रा मिश्वैः शिवार् तैः ॥ ३ ८॥ अनार् तंथामणिपो ठशायिनावरञ्जयट्राजशिरः स्वजार् जः। निघीर तसी चा णावनेपुनेमृगदिजाल्निश्वेषुवर्हिपाम ॥ ३०॥ पुरे पनीतंत्र पर्मणी यकंदि जातिशे पेणयदे तद न्धसा । तर् द्वितन्यकलाणि नः परं परे निकाष्ट्येयम् सा समंवयः॥ ४०॥ द्यितिमित्रायिद्यंद्शाततः सम्लम्नम् त्यतीवमेमतः । पंरेरपर्यातिनवीर्यासंपरांपरभवेष्युतस्व एवमानिनाम्॥ ४ १॥ विहायशानिन्यधामतत्युनः प्रहोद् सन्धेहि वधायविद्धाम्। व जित्र व्नवध्यानित्यहाः श्नेनिसिद्धं मुनये। नममतः ॥ ४२ ॥ परः सग्धामवतायश्रोधनाः सुद्ः तहं वान्धनिकारपीदृशं । भवादृशाचेद्रिवितंतेपग्तिग्त्रयाह् नहतामनिस्ता ॥ ४३॥ अध्यमा मेवनिर स्विक्र मिस्य्य येषि स्वस्पसाधनं। विहायलक्षीपतिलक्ष्मकामुकं जटाधरः मन् जह धी हपावकं ॥ ४४ ॥ न समयपरि रक्षणंक्षम नेनित्तितिपरेषुपरेषुभूरिधामः। अरिपृहिवि जयाधिनः शितोशाविट धतिसे पिधमित्यर्षणानि ॥ ४५॥ विधिन्मयनियागाहोपिन्हार्जिह्यान्धितव समग्धेम ग्रमापत्यवाधे। रिपृतिमिर्गुट्सोदोयमानंट्निट्निट्निह्ततिम्बल्सोस्बंस्मभे तमयः॥४६॥

पुर ज ज्लाताम ह्ववर्चित अवीर्ब मीर ॥ ढोड्वामारि अणिड्विम हमुक्अिमेक स्रीर। द्वित्रमिति पात्वगर् ि वो महो हा ॥ दिगमगणहअंगार्थात्म्हरहरहभंपर्॥ चित्अवोर्हमोर्पाअभरमेर्णिकपर्। रिगम गणह आंधार अगणुखुर साणक आह्या ।

> मातः भिष्रे त्रेपरि तु मनाः साधाः शराना नर् वे उपं तेः। अहै। प्रजापातनर् स्मावार् जसानक्रेमनमः प्रमार्॥ ५॥ विचि चवीर्यस्विंग तस्विष्तः स्याजांप्रतिषद्यवाला ।

पुरोमधाष्ट्राम्हासरा सहिस्त्रीमं छलमध्यवास् ॥५८॥

THE Cundalicá is composed of one stanza of the metre named Dohá, followed by another in the measure called Rolá. The entire stanza consequently comprises eight verses. In this species of metre, rhyme and alliteration are so appropriate ornaments, that it admits the repetition of a complete hemistich or even an entire verse: as in the following example extracted from the Pingala vritta.

Cun'd'alicá or Cun'd'aliá.

D'hóllá mária D'hilli maha, much'hia Méch'ha saríra, Pura Jajjallá mala bara, chalia bira Hammíra. Chalia bíra Hammírá, páä bhára méini campai. Diga maga naha and'hára d'húli súraha raha j'hampai. Diga maga naha and'hára ánu. C'hurasánaca ólla Davali, 'damasí vipac'hc'ha: máru D'hilli maha d'hóllá.

[SEE PLATE B. Fig. 1.]

'HAVING made the barbarians faint at the sound of the drum beaten in the midst of D'billi, and preceded by JAJJALA eminent above athlets, the hero HAMMÍRA advances; and as the hero HAMMÍRA advances, the earth trembles under his feet. The cloud of dust, raised by the march of his multitudes, obscures the chariot of the sun. Darkness spreads with the march of his multitudes. The hostages of the Khorasanian are slain; the foe is slaughtered; and the drum is beat in the midst of D'billi.'

A STANZA of nine verses, composed of one of five with a tetastrich of the metre called *Dohá* subjoined to it, is denominated *Rad'd'há*. Here the stanza of five contains three verses of 15 moments each, with two of 12 and 11 interposed. The distribution of the feet, together with a restriction as to the terminating one, varies in each verse: and a difference in the regulation of the feet gives rise to six varieties which have distinct appellations.

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THE Chatushpadicá (Pr. Chaupaia or Chaupái) is a stanza of sixteen verses distributed into four tetrastichs, in which each verse contains 30 moments (scanned seven times 4-2), and terminated by a long syllable. This measure is of very frequent use in the poetry of the modern languages. The Rámáyan'a of Tulas'í da'sa, in seven cantos, a poem held in great estimation by Hindus of the middle tribes, is composed chiefly in a similar metre under the name (Chaupái) and containing the same number of verses (16) in the stanza. It alternates with the Dohá; and very rarely gives place in that poem to any other metre.

In this metre the stanza contains the greatest number of verses of any admitted into Pra'crit prosody. The other measures regulated by quantity are tetrastichs, except the $Ghat't'\acute{a}$ and certain other couplets, noticed at the foot of the page*; some of which might have been ranked with more propriety under the next head of uniform metre.

ONE other measure which is placed in this class, but which belongs rather to another, remains to be noticed. It is an irregular stanza of four verses containing alternately 17 and 18 syllables with no regulation of their length or of the quantity of the verse or stanza. It is termed Gand'ha, or in Pracrit Gand'hana.

THE rest of the *Prácrit* metres may be sought in the synoptical tables subjoined to this essay.

^{*} The Ghattá and Ghattánanda, consisting of two verses of 31 mátrás each. In the first species the pauses are after the 10th and 18th mátrás; in the other after the 11th and 18th. There is also a slight difference in the distribution of the feet (7 times 4+3 short; and 6+3 times 3+5+6+3+3 short.) The Dwipadicá has in each verse 28 ma'tra's (6+ five times 4+1 long.) The Sic'ha containing the like number, the C'hanja' with 41 ma'tra's to the verse, and the La'la' with 45, are couplets; but the feet are strictly regulat1.

THE present may be a proper place for noticing a class of poetry, which have been even more cultivated in the *Prácrit* and provincial languages than in Sanscrit. I allude to the erotick poetry of the Hindus.

On its general character, I shall briefly observe, that it is free from the grievous defects of the Hindi poems composed in the stile and metre of Persian verse; but it wants elevation of sentiment and simplicity of diction. The passion, which it pictures, is sensual, but the language refined; with some tenderness in the expression and in the thoughts. Among the most celebrated poems in this class, may be mentioned, the Chaura panchasica comprising fifty stanzas by Chaura, and Amaru s'ataca containing twice that number by Amaru. The first is supposed to be uttered by the poet Chaura, who, being detected in an intrigue with a king's daughter, and condemned to death, triumphs in the recollection of his successful love. The other, which is a collection of unconnected stanzas on amatory topicks, is reputed to be the work of the great Sancara a'ch'arya, composed by him in his youth before he devoted himself to the study of theology.

Some of the commentators on this poem have attempted to explain it in a devout and mystical sense, on the same principle upon which JAYADE'VA's lyrick poems are interpreted as bearing a religious meaning. The interpretation, however, is too strained to be admitted; and though JAYADE'VA's intention may havebeen devout, and his meaning spiritual; AMARU, or whoever was the true author of the work bearing this name, is clearly the love of an earthly mistress.

THE most singular compositions in this class of poetry, and for which chiefly a notice of it has been here introduced, are those in which the subject is treated

with the studied arrangement and formal precision of the schools. I shall instance the Rasamanjari of Bha'nudatta Mis'ra in Sanserit, and the works of Matirama and Sundara in Hindi. Here various descriptions of lovers and mistresses distinguished by temper, age and circumstances, are systematically classed and logically defined, with the seriousness and elaborate precision of scholastick writers. As ridicule was not intended, these poems are not humorous but triffing: and I should not have dwelt on the subject, if their number and the recurrence of them in different languages of India, were not evidence that the national taste is consulted in such compositions.

III. Varn'a vritta; metre regulated by the number of syllables.

THE next sort of metre is that, which is measured by the number of syllables: it is denominated Acsharach'-handas or Varn'a vritta in contradistinction to the preceding kinds which are regulated by quantity; and it may be subdivided into three sorts, according as the verses, composing the stanza, are all similar, or the alternate alike, or all dissimilar.

This also is a stanza of four verses (pédas), each containing an equal number of syllables, the length of which is regulated by special rules. The number of syllables varies from twenty-four, to a hundred and four, in each strophe: this is, from six to twenty-six in each verse. There are indeed names in Prácrit prosody for verses from one to five syllables, and instances of Sanserit verse containing a higher number than above stated, viz. from twenty-seven, to one less than a thousand. But these constitute distinct classes of metre. Between the limits first mentioned, twenty-one kinds receive different appellations appropriated to the number of syllables contained in the stanza.

EACH kind comprehends a great variety of possible metres according to the different modes in which long and short syllables, as well as pauses, may be distributed: and since the four quarters of each stanza may be either all alike, or only the alternate similar, or all different, the variety of possible metres is almost infinite. Pingala, however, gives directions for computing the number of species, and for finding their places, or that of any single one, in a regular enumeration of them; or conversely the metre of any species of which the place is assigned: and rules have been given even for calculating the space which would be requisite for writing down all the various species.

THE different sorts, which have been used by poets, are few in comparison with the vast multitude of possible metres. Still they are too numerous to be all described

^{*} Viz. 64 uniform and 4032 half equal.

[†] Viz. 04 uniform; 4032 half equal: and 16 773,120 unequal or dissimilar.

[‡] A mode of calculating the possible varieties of metre is also taught in the *Lila'vati*, a treatise of arithmetick and geometry by Bha'scara. This truly learned astronomer was also a poet; and his mathematical works are composed in highly polished metre. If the reader figure to himfelf Euclid in alcaick measure, Diophantus in anapæst, or the Almagest versified with all the variety of *Horatian* metre, he will form an adequate notion of this incongruity.

at full length. I shall therefore select, as specimens, those sorts of metre, which are most frequently employed, or which require particular notice; referring for the rest to the subjoined tables in which the various kinds are succinctly exhibited by single letters descriptive of feet scanned in the *Indian* and in the *Latin* mode.

In the best Sanscrit poems, as those of Ca'lida'sa, Bha'ravi', S'ri'harsha, Ma'gha, &c. the poet usually adheres to the same, or at least to similar metre, throughout the whole of the canto;* excepting towards the close of it, where the metre is usually changed in the last two or three stanzas, apparently with the intention of rendering the conclusion more impressive. Sometimes indeed, the metre is more irregular, being changed several times within the same canto, or even altering with every stanza.

The Rághava pándaviya, by Cavira'ja, is an instance of a complete poem, every canto of which exhibits variety of metre. This extraordinary poem is composed with studied ambiguity; so that it may, at the option of the reader, be interpreted as relating the history of Ra'ma and other descendants of Das'arat'ha, or that of Yud'hisht'hira and other sons of Pa'ndu. The example of this singular style of composition had been set by Suband'hu in the story of Vásavadattá and Ba'nabhatta in his unfinished work entitled Cádambari; as is hinted by Cavira'ja. Both these works, which like the Das'acumára of Dandí, are prose compositions in poetical language,

^{*} Writers on rhetorick (as the author of the Sáhitya darpan'a and others) lay it down as a maxim, that the metre and style should in general be uniform in each canto: but they admit occasional deviations in regard to the metre.

[†] So the author has called himself.

and therefore reckoned among poems, do indeed exhibit continual inftance of terms and phrases employed in a double sense: but not, like the Rághava pándaviya, two distinct stories told in the same words.

THE following passage will sufficiently explain the manner in which the poem is composed. The first stanza is of the mixed sort of metre named Upajáti, which will be immediately described; the second is in one of the measures composing it, termed Upéndravojra.

[SEE PLATE B. Fig. 2.]

50 Mátuh s'riyan sandad'had Indumatyáh S'lághyah s'aratcála invó'du panctéh, Asau, prajápálanadacsha bhàvád, Ajasya chacré manasah pramódam.

51. Vichitravíryasya divan gatasya Pituh sa rájyam patipadya bályé, Purím Ayódhyám, Dhritráshtra bhadrám, Sa Hastisópham suc'ham ad'hyuvása.

"HAVING the beauty of his mother INDUMATÍ, and admirable like the dewyseason when it enjoys the beauty of the stars, he (DAS'ARA'THA) made glad the mind of AJA* by his skill in the protection of the people. Succeeding in youth to the kingdom of his variously valiant father, who departed for heaven, he dwelt happily in the city of Ayôd'bya', which was adorned with elephants and upheld the prosperity of his realm."

OTHERWISE interpreted the same passage signifies

"HAVING the beauty of his mother, and admirable like the dewy season, when it enjoys the beauty of the stars and of the moon, he (Pa'NDU) made glad the heart of the unborn god, by his skill in the protection of creatures. Succeeding in youth to the

^{*} AJA was father, and Indumati mother, of Da'sarat'ha.

kingdom of this father VICHITRAVÍRYA* who departed from heaven, he dwelt happily in the peaceful city of Hastinapura auspiciously inhabited by DHRITARA'SHT'RA."

1. 50. and 51.

To proceed with the subject. In general the different sorts of verse, which are contained in the subjoined synoptical table of uniform metre, are used singly, and the stanza is consequently regular: but some of the species, differing little from each other, are intermixed. Thus the *Indravojra*, measured by a dactyl between two epitrites (3d and 2d), and the *Upéndravajra*, which begins with a diiambus, may be mixed in the same stanza. This sort of mixt metre (an example of which has been just now exhibited) is denominated *Upajáti*: it of course admits fourteen variations;* or, with the regular stanzas, sixteen. The relief which it affords from the rigorous laws of the uniform stanza, render it a favourite metre with the best poets. It has been much employed by CA'LIDA'SA, in whose poem on the birth and marriage of PA'RVATI', three out of the seven cantos, which compose it, are in this metre; as are eight out of nineteen in his heroick poem on the glory of the race of RAGHU.

The last mentioned work, which is entitled Raghu vans'a, and is among the most admired compositions in the Sanscrit tongue, contains the history of Ra'ma and of his predecessors and successors from Dili'pa father of Raghu, to Agnivern'a a clothful prince who was succeeded by his widow and post-humous son. The first eight cantos relate chiefly to Raghu, with whose history that of his father Dili'pa and of his son Aja, is nearly connected. The next eight concern Ra'ma, whose story is in like manner intimately con nected with

^{*} VICHITRAVÍRYA was husband of PA'NDU's mother.

[†] They have distinct names, which are enumerated in the Ch'hand mártan'da, cited by the commentator on the Vrita Retnácara: as Maniprabhá Cántimati, &c.

that of his father Das'aratha and of his sons Cus'a and Lava. The three concluding cantos regard the descendants of Cus'a, from Atit'hi to Agnivern'a, both of whom are noticed at considerable length; each being the subject of a single canto, in which their characters are strongly contrasted; while the intermediate princes, to the number of twenty, are crowded into the intervening canto, which is little else than a dry genealogy.

THE adventures of RA'MA are too well known to require any detailed notice in this place. The poet has selected the chief circumstances of his story, and narrates them nearly as they are told in the mythological poems and theogonies; but with far greater poetical embellishments. Indeed the general style of the poems esteemed sacred (not excepting from this censure the Ramayan'a of Va'lmi'ci,) is flat, diffuse, and no less deficient in ornament than abundant in repetitions; and it is for this reason, that examples have been selected. for the present essay, exclusively from the celebrated prophane poems. Ra'ma's achievements have been sung by the prophane as frequently as by the sacred poets. His story occupies a considerable place in many of the Pura'n'as, and is the sole object of Va'lmíci's poem, and of another entitled Ad hya'tma Ra'ma'yan'a, which is ascribed to Vya's A. A fragment of a Ra'ma'yan'a attributed to BAUD'HA'YANA is current in the southern part of the Indian peninsula; and the great philosophical poem, usually cited under the title of Yo'ga vasisht'ha; is a part of a Ra'ma'yan'a, comprising the education of the devout hero. Among prophaue poems on the same subject, the Raghuvans'a and Bhat't'icavya, with the Rág'hava pa'ndavi'ya before mentioned, are the most esteemed in Sanscrit, as the Ra'ma'yan'a of TULAS'IDA'SA and Ra'machandrica' of CE'SAVA-DA'SA are in Hindi. The minor poets, who have employed themselves on the same topick, both in Sanscrit and in the Pra'crit and provincial dialects, are by far too numerous to be here specified.

The other poem of Caílida's a above mentioned, though entitled Cumára sambhava or origin of Cuma'ra (who is son of Pa'rvatí), closes with Pa'rvatí's wedding. It has the appearance of being incomplete: and a tradition runs, that it originally consisted of twenty-two books. However, it relates the birth of the goddess as daughter of mount Hima'laya; and celebrates the religious austerities by which she gained S'ina for her husband; after Candarha, or Cupid, had failed in inspiring S'iva with a passion for her, and had perished (for the time) by the fiery wrath of the god. The personages, not excepting her father, the snowy mountain, are described with human manners and the human form, and with an exact observance of Indian costume.

THE following stanza from a poem in mixed language, upon the same subject (the birth of Cuma'ra), is selected as a further example of *Upaja'ti* metre, and as a specimen of the manner in which *Sanscrit* and *Pra'crit* are sometimes intermixed. It is quoted for that purpose in the *Pingalavritti*.

[SEE PLATE B Fig. 3.]

Bálah Cumárah; sa ch'ha-mun da-d'hárí. Upáä-hiná hamu écca-nári. Ahar-n'is'am c'háï visham bhic'hári. Gatir bhavitri hamári.

DE'VI', grieving over her infant son CUMA'RA or SCANDA, says,

"The child is an infant, but he has six mouths [to be fed]: I am a helpless, solitary female: night and day my mendicant husband swallows poison: what resource is there, alas, for me?"

An instance of the same measure used in the Marahat'ta (Maha'ra'shtra) language is quoted by the commentator on the Vritta-reina'cara. It appears, however, from the rhymes, that the verse is there subdivided by a pause after the 5th syllable.

The variety of the *Upaja'ti* metre is increased by the further mixture of two sorts of iambic measure named *Vans'ast'ha* and *Indravans'a'*. The first is composed of a choriambus between two dilambi; in the second, the first dissyllable is a spondee instead of an iambic. Instances of this mixt metre occur in Va'lmici's *Ra'ma'yan'a*,* in the *Sri-bha'gavata Pura'na* † and in a metaphysical and theological drama entitled *Prabo'd'ha Chandr'odaya* ‡.

THE following exatmple from the drama now mentioned, exhibits the combination of those four sorts of metre in a single stanza.

Vídyá-prabódhódaya-janma-bhúmir, Váránosí mucti purí niratyayá Atah culóchch'héda-vid'him vid'hitsur nivastum atréch'hati nityam éva sah.

[SEE PLATE B. Fig. 4.]

"Varan' asi, the indestructible city of eternal salvation, is the native land of science, and intellect: hence, one desirous of observing the precepts by which a continuance of family is cut off, [and final beatitude obtained], is solicited to dwell there continually."

[•] In a passase of the Sundara Cánda.

[†] Book 10th.

Among the persons of this drama are the passions and vices (pride, anger, avarice, &c.) with the virtues, (as pity and patience;) and other abstract notions; some of which constitute very strange personifications. The author was Crishn's Pandita.

The same term (Upaja'ti), as descriptive of mixt metre, has been also applied to the intermixture of two spondaic measures named Va'to'rmi and Sa'-lini: which are very similar, the first having an anapæst, the other a cretic, between a dispondeus and 2d epitritus, with a pause at the fourth syllable. Analogous to the first of these are the Rat'hoddhata', and Swa'gata' measured by an anapæst preceded by two trochees, and followed in the one by two iambics; and in the other by an ionic. These and the preceding are metres in very common use with the best poets: and instances of them, will occur in subsequent extracts chosen for the sake of other measures with which they are joined.

The several sorts of metre above described are, like the two last, also employed separately: for instance the first cantos of the Naishad'hiya of S'RI'HARSHA, and Cira'ta'rjuniya of BHA'RAVÍ, as well as that of the epick poem of MA'GHA, are in the iambic measure called Vans'ast'ha; which recurs again in other parts of the same poems: especially in the Cira'ta, of which four books out of eighteen are in this measure.

The first of the works just now mentioned is a poem in twenty-two cantos on the marriage of Nala king of Nishadha and Damayanti daughter of Bhima king of Viderbha. It is a favourite poem on a favourite subject: and though confessedly not free from faults, is by many esteemed the most beautiful composition in the Sanscrit language. The marriage of Nala and Damayanti, his loss of his kingdom by gaming, through the fraudulent devices of Cali, disguised in the human form, his desertion of his wife and his transformation, her distresses, her discovery of his wife and his transformation, her discovery of him, and his restoration to his proper form and to his throne, are related in another poem already noticed under the title of Nalbdaya: their adventage.

tures likewise constitute an episode of the Maha'bha rata,* and are the subject of a novel in prose and verse, by Trivicrama bhatt'a, entitled Nalachampú † or Damayanti cai'ha'. Sri'harsha's poem, though containing much beautiful poetry according to the Indian taste, is very barren of incident. It brings the story no further than the marriage of Nala and Damaynatí, and the description of their mutual affection and happiness which continues notwithstanding the machinations of Cali. The romantick and interesting adventures subsequent to the marriage, as told in the Nalodaya, are here wholly omitted; while the poet, with a degree of licentiousness, which is but too well accommedated to the taste of his countrymen, indulges in glowing descriptions of sensual love.

THE following example of Vans'ast'ha metre is from the introduction of the Naishad'hiya. To render the author's meaning intelligible, it may be necessary to premise, that the mere celebrating of NALA and DAMAYANTÍ is reckoned sufficient to remove the taint of a sinful age; and is so declared in a passage of the Maha'bha'rata.

Vans'ast'ha metre.

Pavitram atrátanuté jagad yugé, smritá, rasa-cshálanayéva yat, cat'há; Cat'ham na sá mad giram, ávilám api, swaséviním éva, pavitrayishyati.

[SEE PLATE B. Fig. 5.]

"How should a story, which, being remembered, purifies the world in the present age, as it were by an actual ablution, fail of purifying my voice, however faulty, when employed on this narration." 1 3.

^{*} From the 53d to the 79th chapters of the Vanaparva.

[†] A composition, in which prose and verse are intermixed, is called Champú.

In the following passage from Pha'ravi's Cirátár juniya, the last stanza is an example of the Málini metre; and the preceding one, of the Pushpitágra; which will be noticed further on: all the rest are in the Vans'ast'ha measure. It is the close of a reproachful speech of Draupadí to her eldest husband Yud'-HISHT'HIRA, inciting him to break the compact with Duryod'Rana, by which the Pa'ndayas had engaged to remain twelve years in exile.

[SEE PLATE B. Fig. 6.]

"I do not comprehend this thy prudence; for opinions are indeed various: but anguish forces itself on my mind, when considering thy extreme distress. Thou, who didst ormerly repose on a costly couch, and wert wakened with auspicious praise and song. now sleepest on the ground strewed with pungent grass, and art roused from thy slumbers by the dismal howlings of shakals. Thy feet, which, resting on a footstool adorned with precious stones, were tinged by the dust of the blossoms in the chaplets worn by prostrate monarchs, now tread the wilderness where the tips of sharp grass are cropped by the teeth of stags. Thy person, O king, which formerly gained beauty by feeding on the blessed remnant of the feast given to holy men, now wastes with thy glory, while thou feedest on the fruits of the forest. That thou art reduced to this condition by the act of thy enemies, harrows up my soul. To the valiant, whose courage is unsubdued by the foe, misfortune is a triumph. Relinguishing peace, O king, be active and rouse thy energy, for the slaughter of thy foes. Placid saints, not kings, attain perfection, disarming their enemies by patience. If persons such as thee, whose honour is their wealth, who are leaders of the brave, submit to such insupportable disgrace, then is magnanimity destroyed without resource. If divested of courage, thou deem submission the means of lasting ease, then quit thy bow, the symbol of a sovereign, and becoming a hermit, feed here with oblations the purifying flame. Adherence to the compact is not good for thee, valiant prince, while thy foes compass thy disgrace: for kings, ambitious of victory, scruple not the use of stratagem in treating with enemies. Thee, who by force of fate and time art not sunk in the deep ocean of calamity, dull with diminished

splendour, and slow to enterprise, may fortune again attend, as thou risest like the sun with the new born day, dispelling hostile gloom." 1. 37.—46.

To return to the enumeration of analogous sorts of metre. A true spondaic metre, named *Vidyunmala*, consisting of four spondees, with a pause in the middle of the verse which virtually divides the tetrastich into a stanza of eight, is often mixed, as before observed, with the metre termed *Gityarya*, containing the same quantity in a greater number of syllables.

OTHER measures also containing the same quantity, but in a greater number of syllables, occur among the species of uniform metre. The subjoined note* exhibits several species, in which the verse is divided by the position of the pauses into two parts equal in quantity, and some of them equal in number of syllables. Further instances are also stated in the notes, of metre containing the same quantity similarly reducible to equal feet . Some of the species of metre, which contain a greater number of syllables, are reducible, in conformity to the position of their pauses, to this class ...

^{*}Rucmavati or Champacamálá composed of alternate dactyls and spondees; Mattá measured by three spondees with four short syllables before the last; Pan'ava containing a spondee and dactyl, and an anapæst and spondee; Bhramaravilasitá measured by two spondees, four short syllables and an anapæst; Jalodá hatagatá composed of alternate amphibrachys and anapæst, and several other species; as Cusuma vichitra, Manigun'a nicara, Cudmala danti, Lalaná, &c.

[†] Dod'haca composed of three dactyls and a spondee; Totaca containing four anapæst; Pramitiaeshara, measured by three anapæsts with an amphibiachys for the second soot; Millá, a species of Chandravartá, and some others.

[‡] Thus Mattácrid's combines two simple kinds, the Vidyúnmál's and Chandravartá. . So Crauncha-padá, is composed of two species before-mentioned, the Champacamálá and Manigun'a.

ALL these varieties of metre have a great analogy to the *Matrasamaea* and er species before described, which similarly contain the quantity of 16 short syllables or 8 long; reducible to four equal feet.

Among the kinds of metre described at the foot of the preceding paragraphs, the Dód'haca, Totaca and Pramitacshara are the most common. A stanza in the anapæstic measure named Pramitacshara, in which each verse exhibits alliteration at its close, has been already quoted from the fifth canto of the Ciratajunia of Bha'raví. The specimen of anapæstic measure Totaca, which will be here cited from the close of the Nalodaya, is a further instance of alliteration introduced into every stanza of this singular poem.

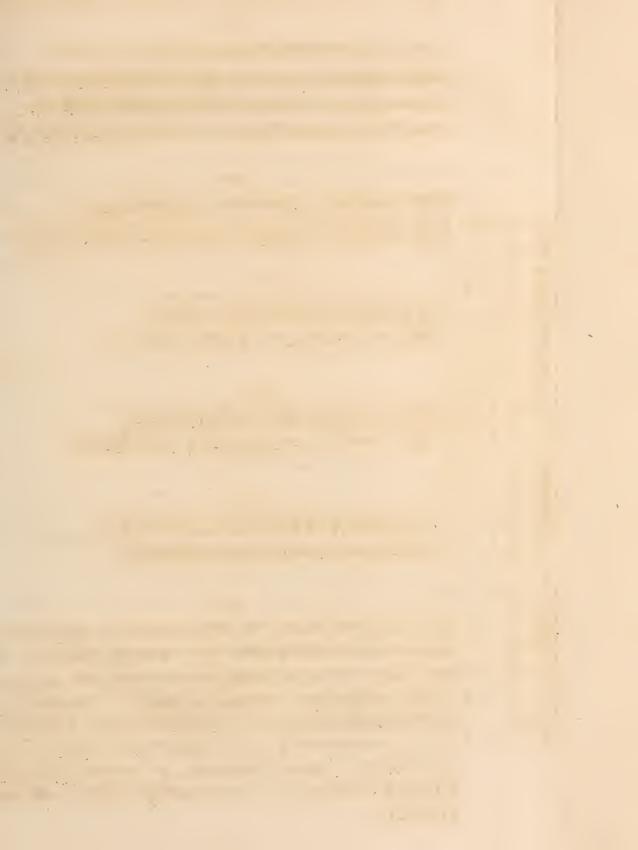
Тотаса.

Ari-sanhatir asya vanéshu s'uchám padam ápadam ápadamá'padamá. Suc'hadan cha yat'haívá janáya Harim yatam áyatam áyatamá yata Má.

[SEE PLATE B. Fig. 7.]

"The luckless and despondent croud of his foes found in the forests a calamitous place of sorrow; and prosperity was constant to him, who gave happiness to a sincerely affectionate people, as she clings to HARI, who blesses the guileless." 4.46.

It has been before said, that, in several sorts of metre, the pauses would justify the division of the stanza into a greater number of verses than four, and instances have been shown, where either the number of syllables, or the quantity would be the same in each verse of a stanza of eight, twelve, or even sixteen short verses. In the following species of metre, the verses of the stanza, subdivided according to the pauses, are unequal.



ओमित्युक्त बताऽशशार्द्विणर्तित्याहृत्यवाचं नमस्तित्वृत्यतितेषुरः सुरम्नावि त्राः शिष्ठवि भति । श् व्णामितश्विता शिष्मुनः कुद्धस्य वैद्यं प्रतिद्यास्त्रीव भुक्टो क् लेनवर् ने बेतुस्वागस्परम्॥ ७५ ॥

Fig. 2.

जातवर्षेयव निविद्ति पुष्कएव तैकानां जानामित्वां प्रकृतिपुर्द्यं कामरू पंमधानः । तनार्थित्वं त्विविधिवशाह् र्वेन्धृर्भतेगः इत्या ज्ञामाश वर्माधगुणे नाधमेतस्वकामा ॥ ६ स्तृप्रानां त्व मिक्स् रणं तत्ववादिप्यायाः स्ट्श्ं मेह्रधनपति के।धविस्विष्ततस्य । गना व्याते वस्तिर् लका नामयक्षे स्वर्णां बाह्याद्वा निस्थतहर्ष्य्रस्थित्द्रकायानहर्म्या ॥ ७॥

Fig. 3.

परिमृदि तमृष्णतो ह्या न मङ्ग ब्रृतिः कष्टमिष्परिवार्षार्थनाभिः क्रिया हु । कलयति चहिमांशो निष्कतं कस्यतक्ष्योमिम नवकरिद न क्रेट्का नाः क्षेतः ॥ २२॥

Fig. 1.

अम् त्रृणे विवधस्यः प्रतेषः श्रतान्विते द्रश्यस्य द्रयद्रम् द्राह्नः । गुणैवेरं मृव न बित व्ह् ले न यंस्नातनः प्रितर मृषण मतस्व यम् ॥ ९॥

Fig. 5.

रै वेपरायर् न शांलिनिहंत जानेयाने व संप्रतिर्वप्रतिवन्ध्रत्ते । क स्मिमनः क शयितासिन्न जामव स्याकर्दी तलैः श्मियताव व नेस्तवाधि ॥

Fig. 6.

क द्र्षरूप जवतंतृ इलो हु क्र हमते।कापका मह महीं व ड पोर्क्रारी। जो भेटिकैविरह पोर् न साउमेरीयैभांतिर्तिपट ई कहिवानगापी॥

Fig. 7. .

Fig. 9.

ः अरिसंहतिरस्वनेषुष्ट्रचांपट्मापट्मापट्मा । सुखर्चयथैव ननायहर्षियतमायतमायतमायुकमा ॥ ४६ ॥

नापिनभः से प्रवामे कावादिन नः सतः । १०० । स्ववंक न प्रसाद स्वतं त्याद्वी भानमानव । स्मयाव फिमपा खना नावानं भवान पि ॥ १०६॥ अमृततामयसः नाम नानिहेषुमृह्गि। शेषेवमन् र हु सक्षितान्योधिवर्णना ॥ १०७॥ पृहिसोशतमागीधि माण इह् देविमनारूवाः ॥ २०५ ॥ भन्यमेऽरिवधः वेषान्घौतवेमक्तर्गामिति । पुरेदास् भुनामिष्टामिटि कर्नुमलंतराम् नरा नाप । सपत्नो आपवन्ता वांसिया बान ग्रांन म्रगः॥ १०४॥ विश् र पिवतां का ग्रेविन नर्तन द्वे वे रिष्ण । क् रान्त्री भर् प्रभावनामति ४१ सम् स्वास्य वरः। महायमध्य रुप्रांधम् र नोविच स्ते॥ १०३॥ महात्माने १८ गृह्णां न अ नमान धने। सर् तियत्वया। चनोक्ष्यनस्रतोक्षावेषितृष्य हेष्पति भूते ॥ १०८ ॥ नोक्ष्यानारु मुद्दि बेर्जर्यानं प्रनापवत्। नेष

The Sárdálavierídita, a very common metre, of which examples occur in the former volumes of Asiatick Researches*, is a tetrastich in which the verse consists of nineteen syllables divided by the pause into portions of twelve and seven syllables respectively. The following instance of this metre is from the close of the first book of Ma'gha's epick poem; where Na'reda, having delivered a message from Indra, inciting Crishn'a to war with Sis'ura'la, king of the Chédis, departs, leaving the hero highly incensed against his kinsman and enemy.

[See PLATE C. Fig. 1.]

O'm ityuctavotó't'ha sa'rngin'a, iti
Vyo'hritoa va'chan, nabhas
Tasminn utpatiré purah sura-muna'v
Indo'h s'riyan vibhroti,
S'atru'n'a'm anis'am vina's'a pis unah,
Crudd'hosya Chaidyam prati,
Vyo'mni'va, bhrucuti' ch'haléna, vadané
Cétus' chaca'r'a'padam.

WHILE the divine sage, having delivered this discourse, ascended the sky, bearing on his front the radiance of the moon; the hero, armed with a bow, uttered an expression of assent; and the frown, which found place on his brow wreakful against the prince of the Chidis, was as a portent in the heavens, foretokening destruction of his foes.' 1.75.

THE Manda erainta, which is the metre in which the Mėg'hadúta is composed, has pauses suddividing each verse of seventeen syllables into three portions, containing four, six, and seven syllables respectively: viz. two spondees; two pyrrichii and an iambic; a cretic, trochee, and spondee. The Harin'i differs from the preceding in transposing the first and second portions of the verse, and making the third consist of an anapæst between two iambics. An instance of it will be subsequently exhibited.

^{*} Vol. I. p. 279.

The example of the first mentioned metre, here inserted, is from the Me-gha-dúta. This elegant little poem, attributed as before observed to Ca'lida'sa, and comprising no more than 116 stanzas, supposes a Yacsha or attendant of Cuve'ra to have been separated from a beloved wife by an imprecation of the god Cuve'ra, who was irritated by the negligence of the attendant in suffering the celestial garden to be trodden down by Indra's elephant. The distracted demigod, banished from heaven to the earth, where he takes his abode on a hill on which Ra'ma once sojourned*, entreats a passing cloud to convey an affectionate message to his wife.

Mandácrátá metre.

[See PLATE C. Fig. 2.]

- 6. Játam vanssé, bhuvana-vidité, pushcárávartacánám, Jaínaími twaím, pracriti-purusan, caímarúpam, Maghónah.

 Ténaí rtíhitwan, twayi, vidihi-sasad dúrabandihur, gatóham.

 Yaíchnaí móghaí varam adihigúné, nadihamé labdihacaíma.
- 7. Santapta'na'n twam asi s'aran'an; tat, payó, priya'ya'h Sandés'am mé hara, d'hanapati-cród'ha-vis léshitasya, Gantavya' té vasatir Alaca' na'ma yacshés wara'n'am. Va'hyódya'na -st'hita - hara-s'iras' - chandrica' -d'hcuta-harmya'.

"I knew thee sprung from the celebrated race of diluvian clouds, a minister of Indra, who dost assume any form at pleasure: to thee I become an humble suitor, being separated by the power of fate from my beloved spouse: a request preferred in vain to the noble is better than successful solicitation to the vile. Thou art the refuge of the inflamed: therefore do thou, O cloud, convey to my beloved a message from me who am banished by the wrath of the god of riches. Thou must repair to Alocá the abode of

^{*} Called Rámagiri.

the lord of Yacshas, a palace of which the whitened by the moonbeam from the crescent on the head of S'IVA, who seems fixed in the grove without." 6 and 7.

THE Sic'harin'i, also a common metre, distributes seventeen syllables into portions of six and eleven; an iambic and two spondees in the one, and a tribrachys, anapæst, dactyl, and iambic in the other. This is the metre of the Ananda lahaai, a hymn of which Sancara'cha'rya is the reputed author, and which is addressed to S'IVA', the Sacti or energy of SIVA or Maha'de'va. It comprises a hundred stanzas of orthodox poetry held in great estimation by the devout followers of Sancara: the devotional poetry of the Hindus does not usually employ metre of so high an order.

Examples of this measure will be shown in a subsequent extract from a work of a very different kind: a drama, by Bhavarhu'ti entitled Málati Mád'-hava.

THE Málini, consisting of fifteen syllables, places two tribrachys and a spondee in the one subdivided portion of the verse, and a cretic, trochee, and spondee in the other. An instance of it occurs in a former extract from the Cirá'ta'rjuniya. The following example of this metre is from the drama abovementioned. The passage is descriptive of a love-sick maid.

Ma'lini metre.

[See PLATE C. Fig. 3.]

Parimridita-mrin'álí-mlánam angam; prarittià Cat'ham api parívára-prárt 'hanábhih criyásu. Calayati cha himáns'ór nishcalancasya lacshmim Abhinava-cari-danta-chch'héda-cántah capólah.

'Her person is weary like bruised threads of a lotos; scarcely can the earnest intreaties of her attendants incite her to any exertion; her cheek, pale as new wrought ivory, emulates the beauty of a spotless moon.' 1.22.

THE Praharshini, containing thirty syllables, separates a molossus, from two pyrrichii, as many trochees and a spondee. An example of it will be shown in a subsequent extract from Bhavabhu'ti's drama.

The Ruchira', with the same number of syllables, disjoins two iambics, from two pyrrichii, a trochee and cretic. The opening stanza of the Bhattica' wa may serve as an instance of this metre. The poem bearing that title, is on the subject of the adventures of Ra'ma: it is comprised in 22 cantos. Being composed purposely for the practical illustration of grammar, it exhibits a studied variety of diction in which words anomalously inflected are most frequent. The style, however, is neither obscure nor inelegant: and the poem is reckoned among the classical compositions in the Sanscrit language. The author was Bhartihari: not, as might be supposed from the name, the celebrated brother of Vicrama'ditya: but a grammarian and poet, who was son of S'ri'd'hara swa'mi, as we are informed by one of his scholiasts Vidya' vinóde.

Ruchira' metre.

[See PLATE C. Fig. 4.]

Abhún nripó, vibud'ha-sac'hah, parantapah, s'rutánwit ó, Das arat'é'ha ityndahritah, Gunair varam, bhuvana-hita-chch'haléna, yam Sanátanah pitaram up'gamat swayam.

'He, whom the eternal chose for a father, that he might benefit the world [in a human form,] was a king, a friend of the gods, a discomfiter of foes, and versed in science: his name was DAS/ARAT'HA. He was a prince eminent for his virtues.' 1.1.

THE Suvadana' distributes twenty syllables in three portions of the verse: one containing two spondees and a bacchius; the second four short syllable

and an anapæest; the third a spondee, pyrrichius, and iambic. The Sragd'hara' a very common metre, differs from it, only in the third portion of the verse, which contains a trochee, spondee, and bacchius: but here the number of syllables in every subdivision is equal: viz. seven. In all the other instances above described, the subdivisions of the regular verses were unequal.

The following sorts of metre, which are usually employed, have no pauses but at the close of the verse. The *Drata vilambitá* contains in each verse two anapæsts preceded by three short syllables and a long one, and followed by a trochee. Instances of this measure have been already cited in an extract from the *Cirâtárjuniya*. The *Sragvini* is measured by a trochee, spondee, and iambic repeated; as the *Bhujangaprayata* is by a similar repetition of an iambic, trochee, and spondee. Both sorts of metre are of frequent occurrence in classick poems.

THE Vasantatilaca, which consists of a spondee, iambic, tribrachys, dactyl, trochee, and spondee, is one of the metres in most general use. It commonly occurs as a change from other metre. But the whole 5th canto of Ma'gha's poem is in this measure. The Chaura panchasica, a short poem before described, is in the same metre, and so is a pathetick elegy on the death of a beloved wife which occurs in the Bhamani vilasa a collection of miscellaneous poetry by Jaganna't'ha Pandita raja. It begins thus:

Vasantatilaca.

[See PLATE C. Fig. 5.]

'Since fate, alas! is become adverse, and the gem of kindred is departed towards heaven; of whom, O my soul, wilt thou tell thy grief? and who will appeare thy anguish with refreshing words?'

THE following passage from some *Hindi* poem, is quoted in NA'RAYAN'A BHAT'T'A's commentary on the *Vritta Retnacara* as a specimen of this metre in the *Canyacubja* dialect.

[See PLATE C. Fig. 6.]

Candarpa-rúpa jaba tén tumha línha, Crishn'a! Lócópaccáma hama hín, baéu-píra, ch'hórí. Jau bhét'icain viraha-píra nasáii mérí. Yain bhénti dúti path'äi, cahi báta, Gópí *.

"CRISHNA, since thou didst assume the form of Cupid, I have neglected worldly affairs, suffering much anxiety. Relieve by thy presence the pain of separation which I endure. Such was the message, with which the Gopi dispatched her embassadress."

V. Sloca or Vactra.

THE most common Sanserit metre is the stanza of four verses containing eight syllables each: and denominated from the name of the class, Anushtubh. Several species of it have been described. Two very simple kinds of it occur, consisting of iambic, or trochaic feet exclusively . The rest are included in one general designation . But several analogous species are comprehended under the denomination of Vactra. Here the laws of the metre, leaving only the first and eighth syllables indeterminate, require either a bacchius or an

^{*} Short vowels, when final, are so faintly sounded, that they are usually omitted in writing the provincial languages of *India* in Roman character. But they have been here preserved at the close of words; being necessary, as in *Sanscrit*, for exhibiting the metre.

[†] The first termed *Pramáni*, the other *Samáni*. Considered as a species of uniform metre, the first is also named *Nagaswarupini* or *Matallicá*; and the second is denominated *Mallicá*. There is also a regular measure which alternates trochees and iambics, and is denominated *Manavacúcrida*: and another, named *Chitrapada*, consisting of two dactyls and a spondee.

[†] Vilana.

amphibrachys * before the eighth syllable, and forbid an anapæst or tribrachys after the first; as also in the 2d and 4th verses of the stanza, an amphimacer. A variety of this metre introduces a tribrachys before the 8th syllable in the 1st and 3rd verses, and a bacchius in the 2d and 4th †. And another sort ‡, which admits five varieties, requires the penultimate syllable to be short in the 2d and 4th verses; and introduces before the 8th syllable of the 1st and third verses, a dactyl, anapæst, tribrachys, amphimacer, or molossus.

The metre, which is most in use, is one of the species now described, in which the number of syllables is determinate (viz. 8); but the quantity variable. CA'LIDA'SA appropriates to this metre the term S'loca (abbreviated from Anushtubh s'loca); and directs, that the fifth syllable of each verse be short; the sixth, long; and the seventh alternately long and short. The mythological poems under the title of Pura'n'a, and the metrical treatises on law and other sciences, are almost entirely composed in this easy verse: with a sparing intermixture of other analogous sorts, and with the still rarer introduction of other kinds of metre. The varieties of the Anushtubh S'loca, which most frequently occur, make the 5th, 6th, and 7th syllables of the 1st and 3d verses all long or all short; or else the 5th long with 6th and 7th short. Thus varied, it is much used by the best poets. CA'LIDA'SA has employed it in the 2d and 6th cantos of his poem entitled Cumara sambhava; and in the 1st, 4th, and several others of the Raghuvan'a. The 2d and 19th cantos of Ma'G'HA's poems are in this metre, and so is the 11th of the Ciratarjuniya.

THE examples, here subjoined, are from Ma'G'HA's poem. One passage is part of a speech of RALARA'MA to CRISHN'A, urging him to the immediate

^{*} The metre is named Pathya when an amphibrachys is introduced in the 2d and 4th verses; some say in the 1st and 3d.

⁺ Chapalu.

I Vulpia.

Commencement of hostilities against SISUPALA: the other is extracted from UDD'HAVA'S reply, dissuading CRISHNA from instant war, and advising his previous compliance with YUD'HISHT'HIRA'S invitation to assist at a solemn sacrifice which the king was on the point of celebrating at *Indraprast'ha*.

[See PLATE C. Fig. 7.]

BALARA'MA speaks, 'A proved enemy, and a tried friend, are most to be regarded; for they are known by their actions: others, presumed to be so, from temper or affinity may be found in the end to be friend or foe. Peace may be maintained with a natural enemy, who confers benefits; not with a presumptive friend, who commits outrages; kindness, or injury, is the proper test of both. The king of the Chédis was offended, O HARI, by thy scizure of RUCHMINI: for woman is the chief cause, that the tree of discord takes root. Whilst thou wert engaged in subduing the offspring of the earth, he besieged this city, as darkness encircles the skirts of Meru, while the sun is remote. To hint, that he ravished the wife of VABHRU is enough: the narration of crimes is too disgustful. Thus aggrieved by thee, and having much injured us, the son of S'RUTAS'RAVAS is an enemy demonstrated by deeds. The man, who is negligent, while an enraged foe meditates aggressions, sleeps in the wind with fire under his arm. What forbearing man, who would cheerfully dissemble a slight and single injury, can patiently endure repeated wrongs. At other times, patience becomes a man; and prudency a woman: but valour befits the insulted warrior; as modesty should be laid aside by a woman in the nuptial bed. Whoever lives, (may none so live!) tortured by the pain of insults from his enemy; would that he had never been born, vainly giving his mother anguish. Dust, which, kicked by the foot of the traveller, rises and settles on his head, is less contemptible than the dastard, who is contented under wrongs.' 2. 36-46.

UDD'HAVA in reply addressed to CRISHNA.

[See PLATE C. Fig. 8.]

"The just King, and his kinsmen, relying on thee for an associate capable of sustaining the heaviest burden, are willing to undertake the task of a solemn sacrifice. Even to enemies who court them, the magnanimous show kindness; as rivers convey to the ocean the rival torents from the mountains. Violence, used against foes by the strong, is at length successful; but friends, once offended, are not easily reconciled even by compliances. Thou thinkest, that the slaughter of the foe will most gratify the inhabitants of heaven: but far better is it to present offerings, which are desired by the deities, who devour oblations. What the virtuous offer, under the name of ambrosia, in flames, whose tongues are holy prayers, was the splendid ornament of the ocean churned by the mountain Mandara. The promise made by thee to thy father's venerable sister, to forgive her son a hundred offences, should be strictly observed. Let the intellect of a good man be sharp without wounding; let his actions be vigorous, but conciliatory: let his mind be warm without inflaming: and let his word, when he speaks, be rigidly maintained. Before the appointed hour, even thou art not able to destroy the tyrant, on whom thyself conferred that boon; no more than the sun can prematurely close the day, which be himself enlightens. 2. 103-110.

V. Compound metre.

Instances of compound metre have been already exhibited under the designation of Upajati, consisting of two kinds of simple metre variously combined: two of these combinations are repeated under the head of half equal metre with the contrasted names of Ac'hyanaci and Viparitac'hyanaci. Other species of metre, belonging to this class, are in use among eminent poets: particularly the Pushpitagra, and Aparavactra. In the first, both verses are terminated by two trochees and a spondee, and begin with four short syllables, one verse interposing a pyrrichius, and the other a dactyl. In the next species, both verses are terminated by three iambics, and begin like the preceding with four short syllables; but one verse interposes a single short syllable, and the other a trochée.

EXAMPLES of the first of these mixed measures are very common. One instance has been already exhibited in a quotation from the 1st canto of BHA'RA'VI's poem of ARJUNA and the mountaineer. The whole tenth canto of the same poem, and the seventh of MA'GHA'S death of S'IS'UPA'LA are in this mixt metre. The second is less common: but an instance occurs in the 18th canto of the Cira'ta'rjuniya.

THE close of the 9th canto of CA'LIDA'SA'S Raghuvans'a, exhibiting a variety of metre, in which two of the species now mentioned are included, is here cited for the sake of these and of other species which have been before described. The subject is DAS'PAT'HA'S hunt, in which he slew the hermit's son: a story well known to the readers of the Rhámáyan'a.

[See PLATE D. Fig. 1.]

- 'Thus did the chase, like an artful mistress, allure the king forgetful of all other business, and leaving to his ministers the burden of the state, while his passion grew by indulgence.
- 'The king, without his retinue, passed the night in some sequestered spot, reposing on a bed of leaves and blossoms, and enlightened by the flame of wild herbs. At dawn, being awakened by the flapping of his elephant's ears in place of the royal drums, he delighted in listening to the sweet and auspicious tones of chirping birds.
- One day, pursuing an antelope, and outstriping his attendants, he arrived, with his horse foaming with fatigue, on the bank of Tamasá a stream frequented by the devout. In its waters a deep sound caused by the filling of a vase, was mistaken by the king for the grumbling of an elephant; and he directed an arrow towards the spot whence the sound proceeded. By this forbidden act, * Das'rat'ha transgressed: for even the wise, when blinded by passion, deviate into the pathless waste. "Ah father!" was the piteous cry which issued: and the king, anxious, sought its cause among the reeds. He

^{*} The royal and military tribe is prohibited from killing elephants lest in battle.

\$ Simula vicridita. साब ह मानिसमानिया समहोतालानियो हम नंब त्याचेर पूर्व बंचिया न सू हो। प्रत्ये पर स्रटेः। अ नःशोर्णान्दर वन्नकं र चवः संरोधक्त कच स्रेतिर्तानां मर्धार् चर्षर्र नापारे प्रशानं सरित्॥ १५॥ गुनिकु नुकुराक्षांयक बटारीकार संवितान कर करि व बरहरा लेति मृत्रप्रामार भोते

र्जी निर्तिश्री धप य ह न नेरियता स्पतिषत्। वर्षा विषयात न नत्र श्रु सम्पत्थितः पत न्रित् स्वका स्ट्यम ट्राह ट्वेन मनः भिनंधमनिष्ट् रविष्ट् नवां मध्ये इसम्भःसन नित्यमनिः सः प्रशासिक मेतन्॥ १६॥ = ひ = · Mandierdudi तार् भाषत्यम् भाषापूर्वमधियातार्यायनामधीर्यात्वत्रवनेष वसमार्वेति । अन प्रणाधिस्कोस्यो न परिहास्रभाभित्रो

A very uncommon metre named Acidetha or Haratiaca.

ह तिर्वस्मृताना करणामान्यनः सचित्रव तिष्वत धरं नगिधियम । परिवृद्ध गणमन् वन्ध सेवयामृगणा नहार् चनगे वकामिनी ॥ ७४ ॥ सुत्तातित कुसुमप्रगत सच्चां क्वांत्रम हा वाधिहो विका सताचाम् । मर पांतर तिवाह यो वसूव कविट समेतपार च्छ् दां स्वयामाम् ॥ ७६ ॥ उपित्समान वृष्ट वर्णातालैः परुष रहाधिनिधिवनो तांतदः । अर्मतन पुर स्वागंणाण्यावन विट्राविक्तित विन्मिङ्ग लाति ॥ ७६ ॥ अष्ट मानुक् हेर्गृहोत वर्त्माविषिनेषा चैच रेर संस्थानागः । पमणे नमुचातपाँ स्ना ढा न मसाप्राच नहीं तुर्द्व मेण ॥ ৩৩ ॥ कू अपुरण भक्ष पट्टक बैक च चार निन हे। श्रीतत स्वाः । न व साँद्दा द्वृह्ति अकी रा ह्यातिनामक्षेत्रसम् ॥ ७८ ॥ तृपतेः प्रतिषद्ध सेवतनह तकानपांडू र द्योवित्यवन् । स्पर्वेष द मर्पतिनिहिणुतव नो। ६ पिर नानियोलिताः ॥ ९० ॥ हातावेतिकान्ति न माय एवेविष्ठ ए। सः स्वानियन्वेत समूद्ध प्र भवसः । श त्येप्रेगत प्रेट्य सबु भंमांनपवंतापाद नःश त्य इं अभोत्सितिवेर्गप ॥ ८० ॥ तेनावतीर्वतृ रुणानु प्रचितान्त्र वे तपृष्टान्वयः सनल कृथानि व स दे हः । तस्मेदि नेत्र तपश्चिम्तः सव लाङ्ग्रिनानमध्य पर्देः इ प्रवासम्ब ॥ ८९ ॥ तत्रे। द्व स्वतमनुद्धृत शलामेवपित्रे। म काशमवसवह्श्रीतिनाव । ताभ्योतयागतमुपेखातमेकपुवमतानतः स्ववश्तिवपतिः ग्रास् ॥ ८२ ॥ तेरद्रम्पताव हुर्वि त च शिक्षाः प्र ह र्नु ए त्वनिखातमु द हार पतामु १ नः । क्षेत्रम् ए ए य प्रमिपति राशापह सार्पि नेत्रय नवारिभिरे ववृ हः ॥ ५१ ॥ दिए। न माक्तिभवातांपप व शेकार् नेवयस्य हिमवेनितम् कवन । आका नपूर्वमितम् कविवमनंगीपावा च केला त्वातः प्रष्टमाप्राधः ॥ ५४ ॥ शाषान्त्रदृष्ट्वनयाननपद्मश्चाभेसानुगहो भगवनामयिवातिने।य । क्रकाट् इत्रविवलि सु तिमिन्छने हो। वे न प्रमेह न.न नी ज्व लनःक रोति ॥ ५ ए ॥ द नांग नेगननृणः किम्यविष्ठ नांव धा स्ववे न्यांभहिने व स्थांष्ठ वे त । एधान् हताश नवतः समृतिर्वयावेषु वेष एसुमनुगान्तेमनाः सद्रारः ॥ ६६ ॥ पात्रानुगः सपदिशासन मस्व एका सम्यास्य पातक बिलाच धृतिनिवृतः । स्वानार्निबाच प्रद्रामप्रविमाश हेन् शपाद् धत्ञलान मैर्विभवान्त्रगणः ॥ २०॥ वर्षिसमर्शस् गनेगन वपःक्रिमेयतेवधा जनाऽनृतिष्ठतु । सर्वाह्र संस्तार्भयाचनात्मन स्ट्रार्स् नैर्धार्व द् धे उतन्त्रमः ॥ रूपः ॥ समीयि वानमुक्बभाऽयहैतिकैः समिद्रंशिविच धृतिचीवक्ति । मनागनगृर्मृपिरापमुद्ध सन्भवानकत लाधिरवानग्रस्ट

भिह्न । प्रवासन कर्म् क्तिपर्य कर्ष च बाताशासिके च् निस्पन्ट् माना मृत स्थान मीवल्क पाला बली मृक चएडा ट्रहा म बस्त भूरी भूत प्रवृ त्तस्त्रति । श्वसर्सितम्त्र ग्रेभागांगर् गर्शास्त्रीत्यो इनस्कार्क्लतप्रणाधीर्टानर्याद्व च नोतिह ज्ञान्यणो हुन् ग व स्वविसारि हे ाः खरुपर्वासिव क्षा धरं ॥ ज्वल द्वल चिश दूरने बह्न राह्न त्रभी मानमां ग्रम्भिय सुताला व किया स्वर्दराभाग मृत्दू ख दुंगमदेगिट स्पृद्धः ध्वानो झूनविसि प्रतासमणं । प्रमेदित करणूनवभना सबेता तासे सद्फुट क्वर्णसभा नगाँगो घना ले यह पाना न स्त्रा च का निस्व सा ग्रह वंदे विभ्वाद भी श्री च नृष्टी च नः॥ १०८॥

Fig. 10 रा सा स के कर्क मा स्व व सनापा स प्र च सहा लेवा भाषा गंभव ने भूगी व वृ क वो भे रिर्मातांगा सर्वे। सेयं भूरिवसार्वसारिव स नामृत्वार्म् संवर्म नेहाधिक हमान हम करणा केर्वाव केर उन ।। २०॥

मिंहा। तं मद्दे स्मार्दे विनाड चवस बाग्रेदे वत्वान्य वितिदाहणः स्तामनः ।

Fig. 12 . वाम्एउभग वितिम व साध नाटावुरिहामपनिर्दिशोभ न स्वयूना ॥ २ ८॥ Probarstan'i.

हिंहू 13 मर्णसम्येच कुरारंकाप्रसायतिर्जन प्रकटिनति नसे हुः से। वंसख्णुरन्मव ने । सुनन् विस्क्रोत्कम्पत्रम् सावि ह्पायानयस्त्रमन् म वन्त्रणपः प्रनीपश्चिमितः ॥ २२॥

Fig.11 আনিক্রনান tilaca. ৰাদ্যাল্যি হুল এটিয়ে হুস্কুল ক্রাম্যাদ্দিনিমিনিবিক্ত হ ব্তুলিন া भाग्व ब्रमाभववाना ववरेत भूमाबाक एवं भोक्त के दिलानित्रवाम तोसि ॥ २३॥

्रिहार है , Girdilla vicialda ्र महेन खुन्द् इत्नामियात नव्ही देवाल्या सारा मेद खोग स्वह्म प्राणापान विस्वादाहि, न्द् ते प्रेयमी । आतं बाह् कलरु नकरुणवाविधानितिव स्मयाकाधनम्वाविविधाविविवेत कथव नेता ॥ २४ ॥

Pye 16 स्वाष्ट्रावानमार्गे कपाकृतमूर्य लाये नहिंगारु च जापप्रारहुव हार्रकेन नतु व प्रावेशिममेर्गा व र 🕕 * Südüla vicrêdita होहं प्राप्त व तैव भूत न ननी नृष्ट्रोषिक द्वाह निकाल क राववत्यर ग्रंग शिल्ला प्राप्तिः स्वन्दि ना ॥ २५ ॥

> मिंह्य द्विषाहतात्माकि मयदिवाकरेविध्मोवि किमय इतारानः । ग्रतातर्ञी न मन्ह सारवे.पिह्नम् ईं न्वतनंह विभं नः। प तत्त्रोधामविकारि कर्वतः विवत्रित्त कृत्वमी (क्ति तस्त्रे ने ना १ ॥

अध्यतवणाग्ड् वन यनसर्विस्तिहितं वेमधृदियः । पानपस्वतनवेदिपतिःपर्वद्विमन्यर्मनाहिमानिनं॥ र्॥

अय चप्त नवानपुरु वागेष करियना विकाय ने गहा मांत्रमृत्यानामृत्यानाम् स्थापनि ॥ १० ॥

विग्नइ : र्दे बिवर्षित्वविष्ठं वृद्धिक स्वरिकाचिंगा वंसपरि सव श् सेविकिर नु ॥ ९०॥ क रेगर स्पिगंदि बनिकर्यणान्तार मुख्यः स्वरं स्वापुक्ते द् स्वर्णाबिह्निवेग बुण्यमः । Sárxhda viceálita .

्रिकाणां tilica. धेविशेहिह् रचह्तर्थपायः क्रियाक्र्राविर्विकेन विर्व्यभाव ।

अर्पेब रूपं म ननवनीर्नाणम फलं नगामीणीर्ययक वर्षां भागवाहितः ॥ ३६ ॥ बारं गर्नार विश्वान मन्त्रम् स्टब्रहा क पर्तण कात्र साहरे : प्रमादः ॥ २८ ॥ * Sic Burici . अशाहिलायपरिमुधिनः लिनिपुनर्गतिस्ताकं भागण्यासम्बद्धान



found the vase; and, near it, a hermit's son pierced by his arrow; and he stood amazed as if internally wounded. The king, of glorious lineage, who had already alighted from his horse, eagerly inquired the parentage of the youth; who, resting on the vase, with feeble accents said " he was the son of a hermit, but no priest." Instructed by him, the king conveyed the wounded youth to his blind parents: and to them as they approached their only son, he related his mistaken deed. The unhappy pair, lamenting, conjured the king to draw the arrow from the breast of their wounded son. The youth was dead. The aged hermit ratifying his curse with tears instead of water for a libation, pronounced this imprecation on the king. "In thy extreme age thou shalt reach thy fated time." with grief like mine for a beloved son." While he spoke, as it were a serpent assailing first and then discharging fatal venom; CAUS'ALYA''s lord, conscious of the first offence, addressed him thus: "Thy curse has fallen like a boon on me, who have not seen the beauteous countenance of offspring; as fire, fed with fuel, fertilises the soil which it burns." The king then said, "For me, who merciless deserves death at thy hands, wifa are thy commands?" The holy hermit asked fuel for the funeral pile; he and his with resolving to follow their son in death. The king, whose attendants were now arrived. promptly fulfilled his command, and remained dejected, bearing with him the hermit's curse, a cause of his future destruction, as the ocean embraces the devouring fire. Again the king addressed him. "Wise hermit! what shall this shameless criminal, who deserve death from thee, now perform." He desired the funeral flame to be duly lighted: and the king presented the fire for him and his wife and son.

'The chief of the race of RAGHU, attended by his army, now returned to his palace, dejected, bearing in his mind the heavy imprecation of the saint, as the ocean holds within itself the fire of destruction.' 9.74.—89.

This extract exhibits, besides two stanzas of Puspitagrá* and as many of Sundari metre, † both belonging to the present head, and one, of which an

^{* 75} and 76.

^{† 77} and 79, most properly the last.

example was promised in this place, * several others which had been before exemplified, † and two which are less common. ‡

A singular species of variable metre is mentioned by writers on prosody, who describe it as a stanza in which the verses increase in arithmetical progression. In the instance exhibited by them the four verses of the stanza increase regularly from 8 to 20 syllables. Varieties of it are noticed in which the progression is not regular: the short verse exchanging places with the second, third, or fourth. The quantity of the syllables is in general indeterminate: but varieties are stated in which the verse consists of short syllables, either ending, or beginning with a spondee, or both ending and beginning with spondees.

A class of metre, which admits an inordinate length of the verse, is known under the general designation of Dan'daca. The verse may consist of any number of syllables from 27 to 999; and the specifick name varies accordingly. The construction of the metre requires that the fix first syllables be short, and the remainder of the verse be composed of cretick feet; or, instead of the cretick foot, the bacchius. These two kinds of metre are distinguished by different names. A verse consisting of any number of anapæsts within the limitation abovementioned, is also comprehended under this general designation; as are verses of similar length consisting exclusively of iambick or trochaick feet. They have their peculiar denominations.

^{*} Swigata 78.

[†] Vasanta tilaca 81-87 and Upéndravajra 88. Ruchirá 99.

[†] Manjubháshini 74 (P. T. 3 I.) and Mattamayura 80 (2 S + T. I. D. S.)

[#] For example. Arna, which comprises 10 feet; Aanava 11; Vy'ala 12; Jinu'ta 13.

EXAMPLES of these extravagantly long verses are to be found in the works of the poet VA'NA. It is unnecessary to insert any specimen of them in this place; as an example will occur in a subequent quotation from Bhavabhuti's drama.

THAT class of metre which is termed half equal, because the alternate verses are alike, comprises various sorts, which appear to be compounded of two simple kinds with an appropriate number of syllables of a determinate quantity.

ANOTHER class, in which every verse of the stanza is different, appear more complex. But, here also, the quantity as well as the number of syllables being regulated, the stanza is in fact composed of four kinds of uniform metre.

The most common metre of this class is that called *Udgatá*. Here the number of syllables in each verse, as well as their quantity differs; the first verse comprising an anapæst, iambick, tribrachys, and trochee; the second a tribrachys and anapæst with two iambics; the third, a trochee, tribrachys, and two anapæsts *; and the fourth, an anapæst, iambick, and pyrrichius, with three iambicks.

THE 12th canto of the Cira'ta'rjuniya is in this metre; and so is the 15th canto of Ma'gha's epick poem. It begins thus:

[See PLATE D. Fig. 2.]

"But the king of the Chédis was impatient of the honours, which the son of Pándu

^{*} Or the third verse may consist of a trochee and dactyl, with two anapæsts; or of two trochees with two anapæsts: and the metre is denominated, in the first instance Saurabhaca; in the second, Lalita.

commanded to be shown in that assembly to the foe of Mad'bu: for the mind of the P_{roud} is envious of the prosperity of others."

OTHER kinds of metre, in which every verse of the stanza differs in the number and quantity of syllables, are comprehended under the general name of Gát há; under which also some writers on prosody * include any sort of metre not described by Pingala, or not distinguished by a specific appellation. The same denomination is applicable also to stanzas consisting of any number of verses other than four †. An instance of a stanza of six verses has been remarked in the Mahábhárata; and another example occurs at the beginning of Ma'gha's poem‡.

[See PLATE D. Fig. 3.]

Dwidhá critátmá, cim ayam divácaró? Vid'húma róchih, cim ayam hutásíanah? Gatan tiraschínam anúru sárat'héh. Prasidd'ham úrddhajwalanam havirbhujah. Patatyad'hó dháma-visári sarvatah. Cim étad? ityáculam ícshítam janaih.

NA'REDA desecuting from the heavens to visit CRISHNA, is thus described:

"Is this the sun self parted into two orbs? It is fire shining with light divested of smoke The motion of the luminary, whose charioteer has no legs, is distinguished by its curvature. The assent of flame is a known property of fire. Then what is this, which descends diffusing light around?" Thus was the sight contemplated with wonder by the people.' Mag'ba 1. 2.

^{*} Hela'yud'ha and Na'ra'yan'a Tara'.

⁺ DIVA'CARA on the Vritta Retnacara.

[†] It is cited by DIVA'CARA BHATTA as an instance of a stanza of six. Yet the scholiasts of the poem omit the two first verses, and read the stanza as a tetrastich: one commentator, however, does remark, that copies of the poem exhibit the additional verses; and another commentator has joined them with two more verses in a separate stanza.

VI. Prose; and Verse mixed with Prose.

I FOLLOW the example of Sanscrit writers on prosody, in proceeding to notice the different species of prose. They discriminate three and even four sorts, under distinct names. 1st. Simple prose, admitting no compound terms. It is denominated Muctaca. This is little used in polished compositions: unless in the familiar dialogue of dramas. It must undoubtedly have been the colloquial style, at the period when Sanscrit was a spoken language. 2d, Prose, in which compound terms are sparingly admitted. It is called Culaca. the preceding sort are by some considered as varieties of a single species named Chúrnicá. It is of course a common stile of composition: and, when polished, is the most elegant as it is the chastest. But it does not command the admiration of Hindu readers. 3d, Prose abounding in compound words. It bears the appellation of Utcalica praya. Examples of it exhibit compounds of the most inordinate length: and a single word exceeding a hundred syllables is not unprecedented. This extravagant stile of composition, being suitable to the taste of the Indian learned, is common in the most elaborate works of their favourite authors. 4th, Prose modulated so as frequently to exhibit portions of verse. It is named Vrittagand'hi. It will occur without study, and even against design, in elevated compositions; and may be expected in the works of the best writers.

Some of the most elegant and highly wrought works in prose are reckoned among poems, as already intimated, in like manner as the "Telemache" of Fenetian and "Tod Abels" of Gesner. The most celebrated are the Vasavadatta of Suband'hu, the Das'a Cumâra of Dan'di, and the Cadambari of Va'na.

THE first of these is a short romance of which the story is simply this. CANDARPACE'TU, a young and valiant prince, son of CHINTA'NAN'I king of Cusumapura*, saw in a dream a beautiful maiden of whom he became desperately enamoured. Impressed with the belief, that a person, such as seen by him in his dream, had a real existence, he resolves to travel in search of her. and departs, attended only by his confidant MACARANDA. While reposing under a tree in a forest at the foot of the Vind hya mountains, where they halted, MACARANDA overhears two birds conversing, and from their discourse, he learns, that the princess VA'SAVADATTA', having rejected all the suitors who had been assembled by the king her father for her to make choice of a husband, had seen CANDARPACE'TU in a dream, in which she had even dreamt his name. Her confidant, TAMA'LICA, sent by her in search of the prince, was arrived in the same forest, and is discovered there by MACARANDA. She delivers to the prince a letter from the princess, and conducts him to the king's palace. He obtains from the princess the avowal of her love; and her confidant, CALATí reveals to the prince the violence of her passion.

The lovers depart together: but, passing through the forest, he loses her in the night. After long and unsuccessful search, in the course of which he reaches the shore of the sea, the prince, grown desperate through grief, resolves on death. But at the moment when he was about to cast himself into the sea, he hears a voice from heaven which promises to him the recovery of his mistress and indicates the means. After some time, Candarpace of himself indexed a marble statute the precise resemblance of Va'savadatta'. It proves to be her; and she quits her marble form and regains ani-

[•] Same with Pat'ali pura or Pat'ali putra; the ancient Palibothra now Patna. As, Res. Vol. IV. p. 11.

mation. She recounts the circumstances under which she was transformed into stone.

HAVING thus fortunately recovered his beloved princess, the prince proceeds to his city, where they pass many years in uninterrupted happiness.

This story, told in elegant language and intermixed with many flowery descriptions in a poetical style, is the Va'savadatta' of Suband'hu. There is an allusion, however, in Bhavabhu'ti's drama *, to another tale of Va'savadatta's having been promised by her father to the king Sanjaya and giving herself in marriage to Udayana. I am unable to reconcile this contradiction otherwise than by admitting an identity of name and difference of story. But no other traces has been yet found of the story to which Bhavabhu'ti has alluded.

In the work above described, as in various compositions of the same kind, the occasional introduction of a stanza, or even several, either in the preface, or in the body of the work, does not take them out of the class of prose. But other works exist, in which more frequent introduction of verse makes of these a class apart. It bears the name of Champú: and of this kind is the Nala Champú of Trivicrama before mentioned. This style of composition is not without example in European literature. The "Voyage de Bachaumont et de la Chapele," which is the most known, if not the first instance of it, in French, has found imitators in that and in other languages. The Sanscrit inventor of it has been equally fortunate: and a numerous list may be collected of works expressly entitled Champú...

^{*} Malati madha'va. Act 2d.

[†] As the Nrisinha Champu, Ganga Champu, Vrindavanna Cham-pu, &c.

The Indian dramas are also instances of the mixture of prose and verse; and as already mentioned, they likewise intermixed a variety of dialects. Our own language exhibits too many instances of the first to render it necessary to cite any example in explanation of the transition from verse to prose. In regard to mixture of languages the Italian theatre presents instances quite parallel in the comedies of Angelo Brolco surnamed Ruzanti: * with this difference, however, that the dramas of Ruzanti and his imitators are rustic farces; while the Indian dramatists intermingle various dialects in their serious compositions.

Notwithstanding this defect, which may indeed be easily removed by reading the *Prácrit* speeches in a *Sanscrit* version, the theatre of the *Hindus* is the most pleasing part of their polite literature and the best suited to the *European* taste. The reason probably is, that authors are restrained more within the bounds of poetic probability, when composing for exhibition before an audience, than in writing for private perusal or even for public recital.

THE Sacuntalú by CA'LIDA'SA, which certainly is no unfavorable specimen of the Indian theatre, will sufficiently justify what has been here asserted. I shall conclude this essay with a short extract from Bhavabhu'tí's unrivalled drama, entitled Málatimád'hava; prefixing a concise argument of the play, the fable of which is of pure invention.

'BHU'RIVASU, minister of the king of Padmávati', and DEVARA'TA in the service of the king of Viderbha, had agreed, when their children were yet infants, to cement a long subsisting friendship, by the intermarriage of

^{*} WALKER's poem on Italian tragedy.

age of Ma'LATí daughter of the first with Ma'D'HAVA son of the latter. The king having indicated an intention to propose a match, between Bhu'rtvasu's daughter, and his own favourite Nandana, who was both old and ugly, the mini ster is apprehensive of giving offence to the king by refusing the match; and the two friends concert a plan with an old priestess, who has their confidence, to throw the young people in each other's way, and to connive at a stolen marriage. In pursuance of this scheme, Ma'D'HAVA is sent to finish his studies at the city of the Padmávatí under the care of the old priestess CAMANDACÍ. By her contrivance, and with the aid of MA'LATÍ'S foster sister LAVANGICA', the young people meet and become mutually enamoured. It is at this period of the story, immediately after their first inerview, that the play opens. The first scene, which is between the old priestess and her female pupil AVALÓCITA, in a very natural manner introduces an intimation of the pre vious events, and prepares the appearance of other characters, and particularly a former pupil of the samepriestess named SAUDA'MINÍ, who has now arrived at supernatural power by religious austerities; a circumstance which her successor AVALÓCITA has learnt from CAPA'LACUN'DALA' the female pupil of a tremendous magician Aghóraghan'T'A who frequents the temple of the dreadful goddess near the cemetery of the city.

'The business of the play commences; and Ma'd'hava, his companion Macaranda, and servant Calahansa appear upon the scene. Ma'd'ava relates the circumstances of the interview with Ma'latí, and acknowledges himself deeply smitten. His attendant produces a picture which Ma'latí had drawn of Ma'd'hava, and which had come into his hands from one of her female attendants. In return Ma'd'hava delineates the likeness of Ma'latí on the same tablet and writes under it an impassioned stanza. It is re-

stored; and being in the sequel brought back to MALATÍ, their mutualpassion, encouraged by their respective confidants, is naturally increased. This incident furnishes matter for several scenes. Mean time, the king had made the long expected demand; and the minister has returned an answer that "the king may dispose of his daughter as he pleases." The intelligence reaching the lovers throws them into despair. Another interview in a public garden takes place by the contrivance of Ca'MANDACí. At this moment, a cry of terror announces that a tremendous tiger has issued from the temple of S'IVA: an instant after, NANDANA'S youthful sister MADAYANTICA' is reported to be in imminent danger. Then M'AD'HAVA's companion, MA-CARANDA, is seen rushing to her rescue. He has killed the tiger. He is himself wounded. This passes behind the scenes. MADAYANTICA', saved by the valour of MACARANDA, appears on the stage. The gallant youth is brought in insensible. By the care of the women he revives: and MADAYAN-TICA' of course falls in love with her deliverer. The preparations for M'A-LATI'S wedding with NANDANA are announced. The women are called away. MA'D'HAVA in despair resolves to sell his living flesh for food to the ghosts and malignant spirits as his only resource to purchase the accomplishment of his wish. He accordingly goes at night to the cementery. Previous to his appearance there, CAPA'LACUN'D'ALA', in a short soliloguy, has hinted the magician's design of offering a human sacrifice at the shrine of the dreadful goddess, and selecting a beautiful woman for the victim. Ma'D'HAVA appears as a vender of human flesh; offering, but in vain, to the ghosts and demons the flesh off his limbs as the purchase of the accomplishment of his wish. He hears a cry of distress and thinks he recognises the voice of Ma'-LATÍ. The scene opens, and she is discovered dressed as avictim, and the

magician and sorceress preparing for the sacrifice. They proceed in their dreadful preparatives. Ma'd'hava rushes forward to her rescue: she flies to his arms. Voices are heard as of persons in search of Ma'latí. Ma'd'hava, placing her in safety, encounters the magician. They quit the stage fighting. The event of the combat is announced by the sorceress, who vows vengeance against Ma'd'hava for slaying the magician her preceptor.'

THE fable of the play would have been perhaps more judiciously arranged if this very theatrical situation had been introduced nearer to the close of the drama. Bhavabhu'ti has placed it so early as the fifth act. The remaining five (for the play is in ten acts) have less interest.

'MA'LATÍ who had been stolen by the magician while asleep, being now restored to her friends, the preparations for her wedding with Nandana are continued. By contrivance of the old priestess, who advised that she should put on her wedding dress at a particular temple, Macaranda assumes that dress and is carried in procession, in place of Ma'Latí, to the house of Nandana. Disgusted with the masculine appearance of the pretended bride, and offended by the rude reception given to him, Nandana to have no further communication with his bride, vows and consigns her to his sister's care. This of course produces an interview between the lovers, in which Macaranda discovers himself to his mistress: and she consents to accompany him to the place of Ma'Latí's concealment. The friends accordingly assemble at the garden of the temple: but the sorceress, Capa'Lacundala', watches an opportunity, when Ma'Latí is unprotected, and carries her off in a flying car. The distress of her lover and friends is well depicted: and, when reduced to despair, being hopeless of recovering her, they are hap-

pily relieved by the arrival of SAUDA'MINÍ, the former pupil of the priestess. She has rescued Ma'latí from the hands of the sorceress, and now restores her to her despairing lover. The play concludes with a double wedding.'

FROM this sketch of the story it will be readily perceived, that the subject is not ill suited to the stage: and making allowance for the belief of the *Hindus* in magick and supernatural powers, attainable by worship of evil beings as well as of beneficent deities, the story would not even carry the appearance of improbability to an *Indian* audience. Setting aside this consideration, it is certainly conducted with art; and, notwithstanding some defects in the fable, the interest upon the whole is not ill preserved. The incidents are striking. The intrigue well managed. As to the style, it is of the highest order of *Sanscrit* composition: and the poetry, according to the *Indian* taste, is beautiful.

I SHALL now close this essay with the promised extract from the play here described. It contains an example, among other kinds of metre, of the Dan'daca or long stanza: and is selected more on this account than as a fair specimen of the drama. This disadvantage attends all the quotations of the present essay. To which another may be added: that of a prose translation, which never conveys a just notion of the original verse.

Extract from Málati Mád hava. Act 5.

-M'AD'HAVA continues to wander in the cemetery.

"Human flesh to be sold: unwounded real flesh from the members of a man. Take it. ""

^{*} Anushtubh. [See PLATE D. Fig. 4.]

'How rapidly the Pais'achas flee, quitting their terrifick forms. Alas! the weakness these beings.'

He walks about.

'The road, of this cemetery is involved in darkness. Here is before me "the river that bounds it; and tremendous is the roaring of the stream, breaking away the bank while its waters are embarrassed among the fragments of skulls, and its shores resound horribly with the howling of shakals and the cry of owls screeching amidst the contiguous woods. *"

Behind the scenes.

'Ah! unpitying father, the person, whom thou wouldest make the instrument of conciliating the king's mind, now perishes.'

MA'D'H. listening with anxiety.] "I heard a sound piercing as the eagle's cry; and penetrating my soul as a voice but two well known. My heart feels rent within me; my limbs fail; I can scarcely stand. What means this †?"

'That piteous sound issued from the temple of CA'RA'LA'. Is it not the resort of the wicked? a place for such deeds ‡? Be it what it may; I will look.'

He walks round.

The scene opens; and discovers CAPA'LACUN'D'ALA' and AGHORAGHANTO, engaged in worshipping the idol: and MA'LATI dressed as a victim.

MA'L.] 'Ah unpitying father! the person, whom thou wouldest make the instru-

^{*} Sardula vicridita. [See Plate D. Fig. 5.]

[†] Mandacranta. [SEE PLATE D. Fig. 6.]

[‡] The Pracrit original of this passage, though prose, is too beautiful to be omitted.

Há iadada nicarun'a! esó dán'i n'arenda-chittáráhóbaäran'anj aón bibajjaï. Há amba siré-hamaähiaé! tum api hadási debba dubbilasidéna. Há Máladímaä-jívidé mama callánasá-ha écca-suha-şa-äla-bbábáré, bhaävadi! chirassa jánábidási ducc'ham sinéhéna. Há pïa sahi Lavangïé! siyina-ávasara-mètta dansaná aham dè sambutta.'

ment of concilliating the king's mind, now perishes. Ah fond mother! thou too art slain by the evil sport of fate. Ah venerable priestess; who lived but for Ma'lati; whose every effort was for my prosperity; thou hast been taught by thy fondness, a lasting sorrow. Ah gentle Lavangica'! I have been shown to thee but as in a dream *.'

MA'D'H.] 'Surely it is she. Then I find her living.'

CAPA LACUN'DALA' worshipping the idol CARA'LA'.] 'I bow to thee, divine CHA'-MUN'DA'.'

"I revere thy sport, which delights the happy court of Siva, while the globe of the earth, sinking under the weight of thy stamping foot, depresses the shell of the tortoise and shakes one portion of the universe, whence the ocean retires within a deep absys that rivals hell †."

"May thy vehement dance contribute to our success and satisfaction; amidst the praise of attendant spirits astonished by the loud laugh issuing from thy necklace of heads which are animated by the immortalizing liquid that drops from the moon in thy crest fractured by the nails of the elephant's hide round thy waist, swinging to the violence of hy gestures: while mountains are overthrown by the jerk of thy arm, terrible for the flashes of empoisoned flame which issue from the expanded heads of hissing serpents closely entwined. The region of space mean time are contracted, as within a circle marked by a flaming brand, by the rolling of thy head terrifick for the wide flame of thy eye red as raging fire. The stars are scattered by the flag that waves at the extremity of the vast skeleton which thou bearest. And the three-eyed god exults in the close embrace of Gauri frightened by the cries of ghosts and spirits triumphant ‡."

They both bow before the idol.

^{*} Vactra. [SEE PLATE D. Fig. 7.]

[†] Sardula vicridita. [SEE PLATE D. Fig. 8.]

[†] The original stanza is in Dan'daca metre; of the species denominated Prachita and Sinhavicranta. The verse contains 18 feet (2 Tra. 16 C.) or 54 syllables, and the stanza comprises 216 syllables. [See Plate D. Fig. 9.]

MA'D'H.] 'Ah! what neglect.

"The timid maid, clad as a victim in clothes and garlands stained with a sanguine die, and exposed to the view of these wicked and accursed magicians, like a fawn before wolves, is in the jaws of death; unhappy daughter of the happy Bhu'rivasu. Alas! that such should be the relentless course of fate"."

CAPA'L.] 'Now, pretty maid, think on him who was thy beloved. Cruel death hastens towards thee †.'

MA'LATI.] 'Beloved MAD'HAVA! remember me when I am gone. That person is not dead, who is cherished in the memory of a lover.'

CAPA'L.] 'Ah! enamoured of Ma'D'HAVA she will become a faithful dove. However that be, no time should be lost.'

AGHORA, lifting up the sword.] "Divine CHA'MUN'DA! accept this victim vowed in prayer and now offered to thee ‡."

MA'D'H. rushing forward raises MA'LATI in his arms.] 'Wicked magician! thou art slain.'

CAPA'L.] 'Avaunt villain. Art thou not so.'

MA'L] 'Save me, prince!' She embraces MA'D'HAVA.

MA'D'H.] 'Fear nothing. "Thy friend is before thee, who banishing terror in the moment of death has proved his affection by the efforts of despair. Cease thy trembling. This wicked wretch shall soon feel the retribution of his crime on his own head ||."

AGHORA.] 'Ah! who is he that dares to interrupt us?'

CAPA'L.] 'Venerable Sir! he is her lover; he is MA'D'HAVA, son of CA'MANDACI'S friend, and a vender of human flesh.'

MA'D'H. in tears.] 'How is this? auspicious maid!'

^{*} Sardula vicridita. [SEE PLATE D. Fig. 10.]

[†] Praharshini. [SEE PLATE D. Fig. 11.]

[†] Praharshini. [SEE PLATE D. Fig 12.]

[|] Harini. [SEE PLATE D. Fig. 13.7

M 'L. sighing.] 'I know not; Prince! I was sleeping on the terrace. I awoke here. But how come you in this place?

MA'D'H. blushing.] "Urged by the eager wish that I may be blessed with thy hand, I came to this abode of death to sell myself to the ghosts. I heard thy weeping. I came hither." *

MA'L.] 'Alas! for my sake wert thou wandering regardless of thyself!'

MA'D'H.] 'Indeed, it is an opportune chance.

"Having happily saved my beloved from the sword of this murderer, like the moon's orb from the mouth of devouring $R\dot{a}bu$, how is my mind distracted with doubt, melted with pity, agitated with wonder, inflamed with anger, and bursting with joy." †

AGHOR.] 'Ah! thou Brábmen boy! "Like a stag drawn by pity for his doe whom a tiger has seized, thou seized thy own destruction, approaching me engaged in the worship of this place of human sacrifice. Wretch! I will first gratify the great mother of beings with thy blood flowing from a headless trunk."

MA'D'H.] 'Thou worst of sinful wretches! "How couldst thou attempt to deprive the triple world of its rarest gem, and the universe of its greatest excellence, to bereave the people of light, to drive the kindred to desperation, to humble love, to make vision vain, and render the world a miserable waste!" **

^{*} Vasanta tilaca. [See Plate D. Fig. 14.]

[†] Sa'rdúla vicridiia. [See PLATE D. Fig. 15.]

[‡] Sa'du'la vicridita. [See Plate D. Fig. 16.]

[§] Sac'harini. [See PLATE D. Fig. 17.]

^{**} A very uncommon metre named Avitat'ha or Nercut'aca. [See PLATE D. Fig. 18.]

Ah wicked wretch! "Hast thou dared to lift a weapon against that tender form, which even shrunk from the blow of light blossoms thrown in merry mood by playful damsels. This arm shall light on thy head like the sudden club of YAMA." *

AGHÓR.] 'Strike, villain! Art thou not such?'

MA'L. to MA'D'H.] 'Be pacified, dear MA'D'HAVA! The cruel man is desperate: Abstain from this needless hazard.'

CAPA'L. to AGHÓR.] 'Venerable sir, be on your guard. Kill the wretch.'

MA'D'H and AGHOR, addressing the women.] "Take courage. The wretch is slain. Was it ever seen that the lion, whose sharp fangs are fitted to lacerate the front of the elephant, was foiled in fight with deer." †

A noise behind the scenes. They listen.

'Ho! ye guards who seek Ma'latí. The venerable and unening Ca'manhací encourages Bhórivasu and intructs you to beset the temple of Cara'la'. She says this strange and horrid deed can proceed from none but Aghó-haghant'a; nor can aught else, but a sacrifice to Cara'la', be conjectured.'

AGHÓR.] 'Now is the moment which calls for courage.'

MA'L.] 'Oh father! Oh venerable mother!'

MAD'H.] 'Tis resolved. I will place MA'LATí in safety with her friends, and slay this wicked sorcerer.

CAPAL'.] 'We are surrounded.'

^{*} Vasanta tilaca. [See PLATE D Fig. 19.] -

Ma'd'h conducts Ma'latí to the otherside, and returns towards

Aghóraghanta.

AGHÓR.] 'Ah wretch! "My sword shall even now cut thee to pieces, ringing against the joints of thy bones, passing instantaneous rapidity thy tough muscles, and playing unresisted in thy flesh like moist clay."*

They fight. The scene closes.

^{*} Sicharini. [See PLATE D. Fig. 20.]

SYNOPTICAL TABLES

OF

INDIAN PROSODY.

Feet used in Sanscrit Prosody.

TRISYLLABIC.

MONOSYLLABIC.

L. O Brevis. Br. G. - Longus. L.

Feet used in Pracrit Prosody.

1. c.One Mátráor Cálá. Sara: BREVIS BR. Carría: SPONDÆUS — S. 2. c. Two Mátrás or Calás. Payod'bara: Scolius - Sc. Hára'. Longus - L. Hasta: ANAPÆTUS v v - A. Supriva: Pyrrhichius s. Periambus, Charan'a Dactylus- D. 0 0 P. Vipra: PROCEUSMATICUS o o o Pa. 3. c. Three Mátrás or Calás. Indrásano: 5. c. Five Mátrás or Calds. Tala: TROCHÆUS - 0 T. CRETICUSC.BACCHIUSB.PÆON PÆ. &c. Dwaja: IAMBUS o -Sarója: 6. c. Six Mátrás or Calás. Tán dava: TRIBRACHYSO O O TR. Molossus M. &c. Haya: Mátrás or Calás.

Metre of the Vedas; regulated by the number of syllables.

Seven classes subdivided into eight orders. CLASSES.

	Gáyatri.	Uhsnih.	Anushtubh.	Vrihati.	Pancti.	Trishtubh.	Jagati
A'rshá,	24	28	32	36	40	44	48
Daivi,	1	2	3	4	5	6	7
A suri,1	5	14	13	12	11	10	9
A suri,1 E Prájápatyá	, 8	12	16	20	24	28	32
□ Yajush,	6	7	8	9	10	11	12
Saman,	12	14	16	18	20	22	24
Rich,	18	21	24	27	30	33	36
Bráhmi,	36	42	48	54	60	66	72

Distribution of the Syllables in Triplets, Tetrastichs, &c.

IV. VRIHATI.

I. GA'TATIR'.

1. Tripad,			$8\times 3=24$	
2. Chatushpad,			$6\times 4=24$	1. Chatushpád, $9 \times 4 \times \pm 36$
3. Pádanivrit,	• •	s	$7 \times 3 = 21$	2 $8 \times 2 + 10 \times 2 = 36$
4. Atipádanivrit,	4	- 6	6+8+7=21	3 · · 8×3+12 = 36
5. Nági, -		- 9	9+9+6=24	1. Pat'hyá, - 8+8+12+8=36
6. Váráhi, -	-	- (5+6+9=24	2. Nyancusarim (Scand'hogriva or Urovrihati,)
7. Bardhmána,	• .	6 6	6+7+8=21	8+12+8+8=36
8. Pratisht'há,	•	- 8	8+7+6=21	3. Uparishtadvrihati, $8 \times 3 + 12 = 36$
9. Dwipádviráj,			12+8= 21	4. Purastadvrihati, 12+8×3=
10. Tripádviráj,		-	$11\!\times\!3\!\equiv22$	3. Mahavrihati, (Satovrihati,) - 12×3=36
I	I. Ushn	IH.		
1. Tripád, (12 4		iH.		V. PANCTI.
	-8+2)			V. PANCTI.
1. Tripád, (12 4	+8+2)	8-1	+12+8= 28	
1. Tripád, (12 4 1. Cacubh, -	-8+2)	8 - 12	+12+8= 28 +8+4= 28	V. PANCTI. 1. Chatushpád, - (12×2+8×2). 1. Satah-p 12+8+12+8=40
1. Tripád, (12 + 1. Cacubh, - 2. Pura Ushnih,	-8+2)	8-1 12 8-1	+ 12+8= 28 +8+4= 28 +8+12= 28	1. Chatushpád, (12×2+8×2).
1. Tripád, (12 + 1. Cacubh, - 2. Pura Ushnih, 3. Paroshnih, 2. Chatushpád,	-8+2)	8-1 12 8-1	+ 12+8= 28 +8+4= 28 +8+12= 28	1. Chatushpád, (12×2+8×2). 1. Satah-p 12+8+12+8=40
1. Tripád, (12 + 1. Cacubh, - 2. Pura Ushnih, 3. Paroshnih, 2. Chatushpád,	-8+2)	84 12 84 -	+12+8=28 +8+4=28 -8+12=28 $7\times 4=28$	1. Chatushpád, - (12×2+8×2). 1. Satah-p 12+8+12+8=40 or 8+12+8+12=40
1. Tripád, (12 + 1. Cacubh, - 2. Pura Ushnih, 3. Paroshnih, 2. Chatushpád, III.	ANUSHI	84 12 84 - r'ubh.	$+12+8=28$ $+8+4=28$ $+8+12=28$ $7\times 4=28$ $-8\times 4=32$	1. Chatushpád, - (12×2+8×2). 1. Satah-p 12+8+12+8=40 or 8+12+8+12=40 2. Astara-p - 8+8+12+12=40 3. Prastara-p - 12+12+8+8=40

2. 1. Acsharapaneti,	~	- ~ ×4=20	VI. TRISHTUBH.			
2. Alpasahpancti,	-	- 5×2=10	1. Jyotishmati, 11+8×4=43			
3. Padapaneti, -	-	- 5×5≡25	2. Jagati, 12 +8×4=44			
4	-	$4+6+5 \times 3=25$	Purastádjyotishmati, 11 (12) $+ 8 \times 3$			
3. Pat'hyá,	-	- 8×5=40	Maďhyá, 8+8+11 (12) +8+8			
4. Jagati,	~	- -8 ×6=48	Uparishtád, 8+8+8+11(12)			
Deficient and exuberant Metre.						

- 1. Saneumati, $\pm 5 + a \times 3$ ex. (Gáyatri) $5 + 6 \times 3 \pm 23$.
- 2. Cacudmati, =6+a×3
- 3. Pipilica mad'hyá, = (Tripád) = many+few+many ex. 8+4+8.
- 4. Yavamad'hyá, = (Tripád) = few + many + few ex. 8 + 10 + 8.
- 5. Nivrit, = a-1 ex. (Gáyatri) 24-1=23
- 6. Bhurij, = a + 1 ex. (Gáyatri) 24+1=25.
- 7. Viráj = a-2 ex. (Gáyatri) 8+8+6=22.
- 8. Swaráj, = a + 2 ex. (Gáyatri,) 8 + 8 + 10 = 26*.

1 Gan'avritta of Panscrit Prosody, and Ma'travritta of Pra'crit Prosody; regulated by quantity.

Odd verse: 30 c. =7\frac{1}{3}\text{ft. (6th = Sc. or Pr.)} Even yerse: $27 \text{ c.} = 7\frac{1}{2} \text{ ft. } (6\text{th} = \text{Br}).$ Each verse ends in L.

6th ft. be Pr. then pause after 1st syllable. Pause in 2d verse before 5th ft. if Pr.

16 Species: Pat'hyá: Pause after 3d. ft. (3+

1. A'RYA' or Gát'há Pr. Gáhá. 30+27=57 c. Pause placed otherwise. Hence A'divipula, Antyavipula, and Ubhayavipula, with 1st verse, 2d, or both, irregularly divided by the pause. Chapalá 1st f. S. or A. 2d Sc. 3d S. 4th Sc. or D. Pause in 1st verse before 7th ft. if Pr. But if 6th Sc. or. (in the short verse, Br). 7th S. D. A. or Pr. Hence Muc'hachapala, Jag'hanya chapuli and Mahachapala, with 1st, 2d or both verses so constructed. Therefore A'rya+3 Cha- $4\frac{1}{2} = 7\frac{1}{2}$ ft. & 12 + 18 + 12 + 15 = 57c.) Vipula: palás × Pat'hyá+3 Vipulás = 16 species.

^{*} If there be room to doubt whether the metre be reduced from the next above, or raised from the next below, the first verse determines the question; for it is referred to the class to which the first verse or pida belongs. If this do not suffice, the metre is referred to that class, which is sacred to the deity, to whom the prayer is addressed. Should this also be insufficient, other rules of selection have been provided. Sometimes the metre is eked out by ubstituting iya or uva for correspondent yowels. This in particular, appears to be practised in the Samaveda.

Variations: Aryá, 1st verse 10800. 2d verse. Also 6. Sangiti, 32 + 29 = 61 c. Aryá $(7\frac{1}{2})$ ft.) 6400. Chapalá 1st verse 32, 2d verse 16. + L. in both verses.

In Pricrit prosody, 27 species: from 27 L. + 7. Sugiti, 32 +27=59 c. 3 Br. = 30 syll. to 1 L. and 55 Br. = 56 syll.

Specifick varieties. Culina containing 1 Sc. 8. Pragiti, 30 + 29 = 59 c. Culathá, 2 Sc. Vesyá, many Sc. Randí, no Sc. Gurvin'i, Sc. 1st, 3d, 5th or 7th ft. But this is 9. Anugiti, 27+32=59 c. against rule: which excludes amphibrachys from the odd fcet.

2. Udgiti or Vigat'há Pr. Viga'ha'. 27 +30= 57 c.viz. 12+ 15+12+18.

- 3. Upagiti Pr. Ga'hu. 27 + 27 = 54 c. viz. 12+15+12+15.
- 4. Giti or Udga't'ha' Pr. Ugga'ha'. 30 + 30= 60 c. viz. 12+18+12+18.
- 5. A'RYA'GITI or C'hand'haca Pr. Scand'ha. 32 + 32 = 64 c.
- 8 ft. complete. $(3+5 \pm 8 \text{ f. and } 12+20+12+$ 20=64 c).

Species 16 (Pat'hya' &c.), variations of each verse 10800.

In Pracrit prosody, 28 species from 28 L. & 8 Br. to l L. and 62 Br.

- 6. Chandrice', Sangiti or Gát'hini Pr. Gáhni viz. Pat'hyá, &c. 30+32=62 c. viz. 12+18+12+20.
- 7. Sugiti, or Parigiti Pr. Sinhini 32+ 30 =62 c. viz. 12 + 20 + 12 + 18.

- L. in first verse only.
- + L. in second verse only.
- Reverse of Sugiti.
- 10. Manjugiti, 29 +30=59 c. Reverse of Pragiti.
- 11. Vigiti, 29 + =58 c. Upagiti + L. in both verses.
- 12. Charugiti, 29+32=61 c. Reverse of Sangiti.
- 13. Vallari, 32+30=62 c. A'ryagiti-L. in last verse.
- 14. Lalitá, 30+32=62 c. -L. in first verse.
- 15. Pramadá, 29 + 27 = 56 c. Upagiti + L. in first verse.
- 16. Cuandricá, 27+22=56 c. + L. in last verse.

All these kinds admit 16 species as above:

II. Ma'tra' vritta or Matra' ch'handas, of Sanscrit Prosody.

- 1. VAITA'LIYA, 56 to 68 c.
 - 1. Vaitaliya, 14 + 16 + 14 + 16 = 60 c. End in C. + 1.

Short syllables by pairs (even verses not to begin with 2 TR).

- 2. Apátàlica, End in D. & S.
- 3. Aupachhandasica, 16+18+16+18=68 c. End in C. & B.

Each kind admits 8 varieties of the short verse & 13 of the long; from 3 long syll. to 6 short beginning the one, and from 4 long syll. to 1 long & 6 short in the other.

Also the following species under each kind.

1. Dacshinánticá, begin with 1.

Comprising 2 varieties of the odd verses.

I. I. (or TR.); and 4 of the even verses. I. B (or P.E. 2d or 4th or 5 Br.)

- 2. Udichya vritta, odd verses begin with I.
- 3. Práchya writta, even verses C. or Pæ. 4.
- 4. Pravrittaça, the 2 preceding combined.
- 5. Aparanticá, 16 × 4 = 64 c. (Prách).
- 6. Cháruhásini, 14 × 4 = 56 c. (Udich).
- 2. Ma'tra' samaca, 16 $(4 \times 4) \times 4 = 64$ c. End S. or A. Begin S. A. D. or Pr.
 - 1. Mátrá samaca, 2d. ft. S.A.or D. 3d. ft. A.
 - 2. Vis'loca, 2d Sc. or Pr. 3d. S. or D.
 - 3. Vánavisácá, 2d S. A. or D. 3d Sc. or PR.
 - 4. Chitrá, 2d Sc. or PR. 3d A. Sc. or PR.
 - 5. Upachitrá, 2d S. A. or D. 3d S. or D.
 - 6. Pádáculaca, the above intermixed.

 The 1st species admits 24 varieties; the 2d,

- 32; & the 3 next, 48 each. The variations of the last species are very numerous.
- 3. GITYA'RYA' or Achalad'hriti, 16 + 4 All short syllables.
- 4. Dwic'HANDACA; or Couplet.
- 1. Sis'há or Chudá, 32 Br. + 16 L.
- 2 species: Jyotich 1st verse 32 Br. 2d 16 L.
- Sumyil or Arangácridil 1st verse 16 L. 2d 32 Br.

Also 1 Sicha 30 + 32 = 62 c.

1st Verse 28 Br. + L.2d 30 Br. L. +

- 2. Chanja, 32 + 30 = 62 c. 1st 30 Br. + L. 2d 28 Br. + L.
- 3. Chulica or Atiruchira 29 +29 =5 S c. 27 Br. + L.

Also 3 Chulica 29 +31=60 c.

1st Verse 27 Br. + L. 2d 29 Br. + L.

III. Matra writta of Pracrit prosody continued from Table 1.

- 8. Doha S. Dwipat'ha, 13 + 11+13 + 11=
- 3 ft. viz. odd verses 6+4+3. even verse 6+4+1.
- 23 species from 23 L+2 Br. to 48 Br.
 - 9. Utcach'ha Pr. Uccach'ha, 11 × 6=66 c.
- 6 verses, 3 ft. each 4+4+3.
- 8 species from 66 Br. to 28 L + 10 Br.
 - 10. Rola or Lola, 24×4=96c.

Pause 11+13. Usually end in L.

- 12 species from 12 L to 24 Br.
 - 11. Gandha Pr. Gandhana, 17 + 18 + 17 + 18 = 70 Syll.
- 12. Chatushpada or Chatushpadica Pr. Chaupaia Chaupaa, 30×4×4=480c.

 16 verses; 7½ ft. 4×7+L.

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- 13. Ghatta & Ghattananda, $31 \times 2 \pm 62$ c. 10 + $8+13\pm 4\times 7+3$ Br. or $11+7+13\pm 6+3\times 3+5+4+3+2+2$ Br.
- 14. Shat'pada or Shat'padica Pr. Ch'hapaa, 96+56=152 c.

Cavya 24 $(11+13\pm6+4\times4+2 \text{ Br})$. $+4\pm96$, Ullala 28 $(15+13)\times2\pm56$. Varieties of the Tetrastich 45 from 96 Br. to 44 L + 8 Br. Varieties of the whole stanza 71 from 70 L + 12 Br. to 152 Br.

- 15. Prajjatica Pr. Pajjalia, $16 \times 4 = 64$ c. 4 ft. End in Sc.
- 16. Atiliha At'hilla Pr. Atila 16 \times 4 \pm 64 c. No Sc. End in P.
- 17. Padaculaca Pr. Culapaa, $16 \times 4 = 61$ c. $6 + 4 \times 2 + 2$ L.

3 O

18. Raddá stanza of nine = 116 c. viz. 1st=15 c.=4 ft, viz. 3+4=4+4. End in Sc. or Pr.

2d=12 c =4 ft. End in Pr.

3d=15 c. End in D.

4th=11 c. =3 ft. End in Tr.

5th=15 c. End in D.

6th to 9th = Doha as before.

5 species.

19. Padmavati Pr. Pauma, $32 \times 4 = 128$ c. 8 ft. no Sc.

20. Cundalica Pr. Cundalia, stanza of eight = 142 c.

Doha + Rola or Cavya.

21. Gagan'angana, $25 \times 4 = 100 c$.

20 syll. viz. 5 L & 15 Br. End in I.

22. Dwipadi or Dwipada, $28 \times 2 = 56$ c. $6\frac{1}{2}$ ft. viz. 6+4+5+L.

23. C'hanja, 41 × 2 = 82 c.

10 ft. viz. 1 Pr. + C.

24. S'ic'ha, 28 × 2=56 c.

7 ft. viz. 6 Pr. + Sc. See Sanscrit metre.

25. Mala, 45 × 2=90 c.

11 ft. viz. $4 \times 9 + c. + S$.

Also 25. Mala 45 + 27 = 72 c.

ast verse as above, 2d yerse A'rya.

26. Chudicala Pr. Chuliala, $29 \times 2 \pm 58$ c. Half the Doha + 5.

37. Saurashtra Pr. Soratt ha, 11+13+11+13=48 c.

Reverse of the Doha.

28. Hacali, 14×4=56 c.

 $3\frac{1}{2}$ ft. viz. $4 \times 3 + L$. 1 syll. 11 or 10). ft. D.

Pr. or A. sometimes S. Not end in P. S.

29. Mad'hubhava, 8 x 4 = 32 c.

2. ft. End in Sc.

30. Abhira, 11 ×4=44 c.

7 + Sc. or D. +I + Sc. or Sc. + Tr. +Sc.

31. Dan'dacala, 32 × 4=128c.

4 x 4 + 6 + 2 + 8 or 10 + 8 + 14. End in L.

32. Dipaca, 10×4=40. c.

4+5+Br. usually end in Sc.

33. Sinha'valoca Pr. Sinhalao 16 x 4 = 64 c.

4 ft. A. or Pr. but end in A.

34. Playangama Pr. Parangama, $21 \times 4 = 84$ c.

6 × 3 + 1. Begin with L.

35. Lila'yati, 24 or less × 4=96 or less. 6 ft.

or less: not end in A.

36. Harigita, 28 × 4=112c.

 $5+6+5\times3+L$. Should begin with Pr. and end in S.

37. Tribhangi, 32 x 4=128 c.

8 ft. No Sc. End in L.

38. Durmila' or Durmilica', $32 \times 4 = 128$ c. 10+8+14. ft. 8.

39. Hira or Hiraca, 23 × 4 = 92. c.

4 ft. viz. $6 \times 3 + 5$. ft. 6 Br. or 1 L. with 4 Br. End in L.

40. Jalad'hara or Jalaharana', 32×4=128 c. Pauses 10+8+6+8. ft. 8 Generally Pr. End in A.

41. Madanagriha or Madanahara', 40 × 4 = 160 c.

10+8+14+8=40.

42. Maha'ra'sht'ra Pr. Marahat't'a, 29×4=
116 c.

10+8+11+ or 6+ 4 ×5+ L. + Br.

Also the following kinds:

43. Ruchira', 30×4=120 c.

71 ft. end in L.

44. Calica', 14×4=56 c.

Pauses 8+6.

45. Va'san'a, 20 × 4=80 c.

4 ft. End in C. Pause before the last.

46. Chaurola, 16 + 14 + 16 + 14 = 60 c, ft. A. or Pr.

47. Jhallana', 37 × 4 = 148 c.

 $71 \text{ ft } 5 \times 7 + \text{L. Pauses } 10 + 10 + 10 + 7.$

48. Ashad'ha, 12+7+12+7=38 c.

49. Ma'lavi, 16 + 12+ 16 + 12=56 c.

Long yerses 4 ft. short yerse end in L.

50. Matta', $20 \times 4 = 80 \text{ c}$.

5 st. no Sc.

51. Rasamala, $24 \times 4 = 96$ c. 6 ft.

52. Ayalambaca, $13 \times 4 = 52$ c. 3 ft. $4 \times 2 + 6$. End in L.

IV. Metre regulated by number of Syllables.

VACTRA, SX4=32 syll.

2 ft. between 2 syll. The species vary in the 2d ft. or 3d place.

1. Simple Vactra.

L. or Br.+M. &c. (except Tr. & A. and, in the even verse, C).+B. + L. or Br. Therefore 1st 4th & 8th syll. either long or short. 5th short. 6th & 7th long. Either 2d or 3d long.

Variations of the 1st verse 24; of the 2d 20.

2. Pat'hyá.
1st verse as above; 2d with Sc. for 2d ft.
Hence 7th syll. short.

3. Viparita pat'hya.

The preceding transposed.

4. Chapata.

1st verse with Tr. for 2d ft. Therefore 6th & 7th syll, short.

5. Vipula.

2d verse (some say 1st, others all) with 7th syll. short. Therefore 2d ft. D. Sc. H. or Tr.

5 or 7 species: Bha-vipula, 1st verse (some say either) with D. for 2d ft. Ra-vipula, with C. for 2d ft. Navipula, 2d ft. Tr. Ta-vipula, 2d ft. H. Ma-vipula, 2d ft. M. Ya-vipula, 8d ft. B. Ja-vipula, 2d ft. Sc.

No instance occurs with an anapæst for the 2d ft. or 3d place.

V. Acshara ch'handas or Varn'a vritta. Metre regulated by number and quantity.

Regular or uniform metre; the stanza being composed of equal and similar verses.

From one to five syllables in the verse, or from four to twenty in the stanza.

I. UCTA' or UCT'HA. $1 \times 4 = 4$. 4. Sri, g.=L. 2 Mahi, l.=Br.

II. ATYUCTA'. $2\times4=8$.

1. Stii, or Cama, 2 g. = S. 2. Rati, or Mahi,

 $l. g. \equiv I.$ 3 Saru, $g. l. \equiv T.$ 4. Madhu, Pr. Mahu, $2 l. \equiv P.$]

III. MADHYA'. $3\times4=12$.

1. Nari, or Tali, m. = M. 2 S'as'i, Pr. Sasi, 3 O 2

 $y. \equiv B.$ 3. Priya, Pr. Pia; or Mrigi, $r. \equiv C.$ 4. Raman'i, or Raman'a, $s. \equiv A.$ 5. Panchala, or Panchala, $t. \equiv H.$ 6. Mrigendra, Pr. Mainda, $j. \equiv Sc.$ 7. Mandara, $bh. \equiv D.$ 8. Camali, or Camala, $n. \equiv Tr.$

IV. PRATISHI"HA' $4 \times 4 \equiv 16$.

1. Canya, or Tirna, Pr. Tinna, m. $g. \equiv 2$ S.
2. Ghari, or Harica, $r. l. \equiv 2$ T. 3. Nagalica;

Lagalica, Nagani, or Naganica, Pr. Magania, or Nagani, j.g. = 2 I. 4. Sati, n.g. = P. I.

V. SUPRATISHT'HA' $5 \times 4 = 20$.

1 Pancti, Acsharapancti, or Hansa, bh. 2. g = D. S. 2. Sammoha, m. 2g = M. S. 3.

Haritabandha, or Hari, $2g \cdot l$. $2g \cdot \text{or } t$. $2g \cdot \equiv$ S. B. 4. Priya, $2l \cdot r \cdot \equiv A$. I. 5. Yamaca, Pr.

Jamaca, n. $2l \cdot \equiv P$. Tr.

From six to twenty-six syllables in the Verse.

1. Ga'YATRI. $6 \times 4 = 24$.

1. Tanumad'hya, $ty. \equiv S P S$. 2. Vidyullec'ha, or Sesha, Pr. Sesa, $2m \equiv 3 S$. 3. Sasivadana, or Chauransa, $ny \equiv 2 P S$. 4. Vasumati, $ts \equiv S P 1$. 5. Vanita, or Tilaca, Pr. Dilla, $2s \equiv 2 A$. 6. Yodha, or Dwiyod'hi, Pr. Vijoha, $2r \equiv T S$. 7. Chataransa, Pr. Chauvansa, $ny \equiv 2S P$. 8. Manthana, or Camavatara, (half of the Saranga), 2. t = S P S. 9. Sanc'hanari or Somaraji, (half of the Bhujangapravata), $2y \equiv 1 P S$. 10. Malati, Sumalati, Vasanta, or Caminicanta, $2j \equiv 1P S$. 11. Damanaca, $2n \equiv 3 P$.

II. USHNIH 7 x 4=28.

1. Cumaralatita, (2+5)jsg = 1 + Tr. S.2. Madalech'a, msg = SDS. 3. Hansamala, srg = ATS. 4. Mad'humati, 2ng = 2PA.
5. Sumanica, rgl = 2TC. 6. Suvasa, njl = D2P 7. Carahancha, nsl = 2PSc. 8. Sirsha, Pr. Sisa, 2mg = 2SM.

III. ANUSHTUEH $8 \times 4 = 32$. 1. Chitrapada, 2 bh. 2 g = 2 DS. 2. Vidy-

unmala, Pr. Bijjumala, $(4 + 4\ddagger) 2 m 2g = 2$ S + 2 S. 3. Manavaca, or Manavacrida, $(4 + 4\dagger) bh$. t l g = T I + T I. 4. Hansaruta, u n 2 g = S D B. 5. Pramanica, Nagaswarupini, or Matallica, j r l g = 4 I. 6. Samanica, or Mallica, r j g l = 4 T. 7. Vitana, j t 2g = 2 I T S. 8. Tunga, 2 n 2 g = 3 P S. 9. Camala, 2 l n r = 2 P 2 I. 10. Hansapadi, 2 g m s = 2 S T I. 11. Matangi, m 2 l m = S T I S. 12. Rambha, n l g m = 2 P 2 S.

IV. VRIHATI $9 \times 4 = 36$.

1. Halamuc'hi, (3+6), rns = C + 2 PI. 2. Bhujagasisustita, (7+2), 2nm = 2 PA + S. 3. Bhadrica, rnr = 2 TAI. 4. Mahalacshmi, 3r = T SBI. 5. Sarangi, or Sarngi. nys = 2 PSA. 6. Pavitra, Pr. Payittam, bh. s. = 2 SPA. 7. Camala, 2ns = 3 PA. 8. Bimba, nsy = P Tr. TS. 9. Tomara, s2j = A IPT. 10. Rupamali, rm = 3 SM. 11. Manimad'hya or Maniband'ha, bh. rs = D 2 TI. 12. Bhujangasangata, sr = A 3 I.

V. PANCTI $10 \times 4 = 40$.

1. Sudd'haviraj, $m \circ jg = S T \circ I$. 2. Panava, (5+5), $m \circ n \circ g = S O + AS$. or $m \circ n \circ g = S O + AS$. or $m \circ n \circ g = S O + AS$. or $m \circ n \circ g = S O + AS$. or $m \circ n \circ g = S O + AS$. or $m \circ n \circ g = S O + AS$. or $m \circ n \circ g = S O + AS$. Mayurasarini, $r \circ j \circ g = A O O O$. S. Upast'hita, $(2+8) \circ i \circ j \circ g = S O O O$. On G O O O O O. Upast'hita, $(2+8) \circ i \circ j \circ g = S O O O$. On G O O O O. Manorama, G O O O O. On G O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O O. Saravati, G O O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Manorama, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O O. Saravati, G O O O O. Manorama, G O O O O. Saravati, G O O O. Saravati, G O O O O. Saravati, G O O O O. Saravati, G O O O. Saravati, G O O O O. Saravati, G O O O. Saravati, G O O

VI. TRISHTUBH 11 \times 4 \pm 4.

1. Indravajrá, $2 t j 2g \equiv S I D T S$. Upendravajra, i t j 2g = 2 IDTS. 3. Upajáti, or Ac'hyánaci, (14 species.) The two foregoing intermixed. 4. Dod'haca, Band'hu or Nilaswarupa, 3 bh. 2g = 3 D S. 5. Salini, (4 +7†), $m \ 2 \ t \ 2 \ g \equiv 2 \ S + C \ T \ S. \ 6. \ Vatormi,$ $(4 + 7 \dagger)$, m bh. t 2 g = 2 S + A T S. 7. Bhramaravilasita, $(4 + 7 \dagger)$, m bh. n lg =2 S + 2 P A 8. Rat'hod'dhata, rnrlg = 2 TA 2 1. 9. Swagata, r n bh. $2 g \equiv 2 TA PS$. 10. Vrinta or Vritta, (4 + 7 +), 2 n s 2 g = 3 P A S. 11. Syenica, or Srenica, rjrlg = 4TC. 12. Sumuc'hi, (5+61), $n \ 2j \ lg = P \ A +$ 2 A. 13. Bhadrica, 2 n r lg = 2 P A 2 I. 14. Maucticamala, Sri, Anucula or Cudmaladanti, (5 + 6), bh. i n 2g = D S + 2 P S. 15. Upast'hita, j st $2g \equiv 1$ Tr. ST S. 16. Upachitra or Viseshica, 3 s l g = 3 A I. 17. Cupurushajanita, 2 nr 2 g = 2 P A IS. 18. Anavasita, n y bh. 2 g = 2 P S D S. 19. Mot'anaca, $t \, 2j \, l \, g \equiv S \, 3 \, A$. 20. Malatimala, 3 $m \, 2 \, g \equiv$ 4 S M. 21. Damanaca, rnlg = 4 P A. 22. Madand'ha, $m s j 2g \equiv S 2 T S$.

VII. JAGATÍ 12 \times 4 = 48.

1. Vansas'tha or Vans'ast'havila, j t j r =2 I T 3 I. 2. Indravans'a, 2 t j r = S 1 T 3 I. 3. Upajati, the two foregoing intermixed. 4. Tot'aca, $4 s \equiv 4 A$. 5. Drutavilambita, $n \ 2 \ bh \ r \equiv P$ I 2 A J. 6. S'triputa or Puta, (8 + 4), 2 n m y \equiv 3 PS + TS. 7. Jalodd'hatagati, (6 + 6), $j s j s \equiv I P I + I P I$. 8. Tata or Lalita, $2 \pi m$ $r \equiv 3 \text{ P 2 S I.}$ 9. Cusumavichitra, $(6 + \hat{6})$, n y n y = 2 P S + 2 P S. 10. Chanchala'eshica Pramudvitayadana, Mandacini, Gauri or Prabha, (7+5), 2n2r = 2PA+BI. 11. Bhujangaprayata, $4y \equiv I TSITS$. 12. Sragvini or Lacshmid'hara, $4r \equiv TSITST$. 13. Pramitacshara, sj 2 s = A Sc. 2 A. 14. Cantotpada or Jaladharamala, (4+8), m bh. s m = 28+2P 2 S or bh. $m \le m \equiv D S D 2 S$. 15. Vais'wadevi, (5+7), 2 m 2 y = MS + TSB. 16. Navamalini, (8 + 4), n j bh. y = 2 P 2 T + P S. 17. Chandravartma, $(4 + 8 \ddagger)$, $r \ n \ bh. \ s = 2 \ T + P$ DA. 18. Priyambada, n bh. jr = PIP3I. 19. Man'imala, (6+6), t y t y = S P S + S PS. 20. Lalita, t bh. jr = S 1 P 3 I. 21. Ujjwali, 2 n bh. r. = 3 PT 21. 22. Malati or Varatanu, (5+7), $n \ 2j \ r \equiv P \ A + A \ 2 \ I$. 23. Tamarasa or Lalitapada, n 2 jy=2 P 2 D S. 24. Lalana, (5+7) bh. $m2s \equiv DS + DTI$ or bh. $tns \equiv D$ S + 2 P A. 25. Drutapada, n bh. n y = P I 3P.S. 26. Vidyad'hara, (4 + 8), 4 m = 2 S + 4S. 27. Saranga, 4 1 = S I T S I T. 28. Maucticadama, $4j \equiv I PTIPT$. 29. Modaca, 4 bh. $\equiv 4$ D. 30. Taralanayani, $4n \equiv 6$ P.

VIII. ATIJAGATI, 13 \times 4 = 52.

1. Praharshini, (3 + 10) m n j r g = M+2 P 2 T S. 2. Ruchira, or Atiruchira, (4+9) j bh. s jg = 2 I + 2 P T C. 3. Mattamayura, or Maya, (4+9) m t y sg = 2 S + T I D S. 4. Gauri, 2n2rg=3PTSB.5. Manjubhashin i, Prabod'hita, Sunandini, or Cauacaprabha s j s j

g=A I + P 3 I. 6. Chandrica, Cshama, Utpalini, or Cut'ilagati, (7+6) 2 n 2 t g=P A+ TS I. 7. Calahansa, Chitravati, or Sinhanada, s j 2 s g=P 2 T P D S. 8. Chancharicavali, y m 2 r g=I 2 S C T S. 9. Chandralec'ha, (6+7) n s r y g=2 P I + 2 T M. 10. Vidyut, (6+7) n s 2 t g=2 P I + S I C. 11. Mrigendramuc'ha, n 2 j r g=P A P 2 T S. 12. Taraca, 4 s g=3 A P S. 13. Calacanda, or Canda 4 y l=B I T S I T. 14. Pancajavali, or Pancavali, bh. u 2 j l=D 2 P 2 D. 15. Cdandi, 2 u 2 s g=4 P D S. 16. Prabbavati, (4+9) t bh. s j g=S 1+2 P T C.

IX. SACCARI, $14 \times 4 = 56$.

1. Asambad'ha, (5 + 9) m t n s $2 g \equiv M S +$ 2 P A S. 2. Aparajita, (7 + 7) 2 n r s lg = $2 P A + I A I \text{ or } s n r s lg \equiv P T A I A I. 3.$ Praharanacalita, or Calica, (7+7) 2 n bh. n l g= 2 PA + 2 PA. 4. Vasantatilaca, Sinhonnata, Udd'harshin'i, Mad'humad'havi. or Sobhavati, t bh. 2 j 2g = SIPIPTS. 5. Lola, or Alola, (7+7) m s m bh. 2 g = SDS + SDS. 6. Induvadana, or Varasundari, bh. $j s n 2g \equiv T P$ TPTPS. 7. Nadi, (7 + 7) 2 n t j 2 g = 2 PA + DTS. 8. Lacshmi, m s t bh.2 g=SDSTDS. 9. Supavitra, (8+6) 4 n 2 g = 4 P+ 2 P S. 10. Madhyacshama, (4+10) or Cut'ila, (4+6+4) m bh. n y 2 g = 2 S + 3 P +2 S. 11. Pramada, $n j bh. j lg \equiv 2$ P 2 T P **T** I. 12. Manjari, (5 + 9) s j s y l g = P 2 T PT S I. 13. Cumari, $(8 + 6) n_j bh$. j 2 g =2 P 2 T P T S. 14. Sucesara. nrnrlg = P2I P31. 15. Vasánti, m t n m 2 g = 2 S D A 2 S. 16. Nandimuc'hi, (7 + 7) 2 n 2 t 2 g = 3 P S IT.S. 17. Chacra, or Chacrapata, bh. 3 nlg = T5 P I. 18. Lilopavati, (4 + 10) 4 m 2 g = 2 S+ 5 S. 19. Nat'agati, 4 n 2 g = 6 P + S. 20.Copayati, bh. mstlg= DSDSTI.

X. Atisaccarí, $15 \times 4 = 60$.

1. Chandrávartá, (7 + 8 1) 4ns = 2 P Tr. + P Tr. A. 2. Málá, or Sraj, (6 + 9) 4 ns = 2Tr. + 2 Tr. A. 3. Manigun'anicara, (8 + 7) 4 ns = 4 P + 2 P A. 4. Máliní, or Nan'dimuc'hi, (8 + 712 n m 2 y = 3 PS + CT S. 5. Chandralec'há, (7 + 8) m r m 2 y = 2 S B +S I T S. 6. Cámacri'dá, Lilach'hela, or Sárangicá and Sarangaca, 5 m = 6 S M. bhadraca, or Subhadraca and Sucesara, (7 + 8) $n \ j \ bh. jr = 2 \ P \ O + P \ 3I. \ 8. Elá. (5 + 10) s$ i 2 n y = A I + 4 I T. 9. Upamálini, (8 + 7) 2 n t bh. r = 3 P T + S A I. 10. Vipinatilaca, n s n 2 r = 2 P I Tr. T S I. 11. Chitra, 3 m 2 y = 3 S M I T S. 12. Tun'aca, or Chamara, (8 L 7 Br. = 23 c.) = 6 T C. 13. Bhramarayali, 5 s=5 A. 14. Manayansa, s 2 j bh. 7=A 1 P 2 T 2 I. 15. S arabha, or S'as'icala, 4 $n + s \equiv 6 \text{ P A.}$ 16. Nisipala, bh. j s $n \neq DI P$ I P 2 I. 17. Utsara, rn 2bh.r = 2 T 3 A I. 18. Hansa, (8+7) n 2 j r y = 2 P D 3 T S.

XI. Ashti, $16 \times 4 = 64$.

1. Rishabhagajavilasita, or Gajaturangavilasita, (7+9) bh. r3ng = D2T + 3PA. 2. Van'ini, nj bh. j rg=2P2TP2TS. 3. Chitra, Chitrasanga, Atisundara or Chanchala. (double Samanica) r j r j r l=8 T. 4. Panchachamara, Naracha or Naracha, (double Pramánica), j r j r jg=8 T. 5. Dhiralalita, bh. rnrng=D 2 T P 2 TA. 6. C'hagati, Nila, Lila or Aswagati, 5 bh. g=4 D T I. 7. Chacita (8+8) bh. s m t ng=D A S+S D A. 8. Madanalalita, (4+ 6+6) m bh. n m n g = 2 S + 2 P I + S P 1.9. Pravaralalita, mn sr g=1 2 S 2 P I T S. 10. Garudaruta, nj bh. j t g=2 P 2 T P T S I. 11. Sáilas'tic'ha, (16 or 5+6+5) bh. r n 2 bh. g = D 2T3 A or DT + T PT + IA. 12. Varayuyati, bh. ry2ng = D2TS2PA. 13. Brahmerupach, (double Vidyunmala,) 5 m g = 8 S.

Achaladhrita, or Gityarya, 5 n l = 8 P. 15. Pinanilamba, (4+5+7) m t y m s g=2 S+DS+S D S. 16. Yauvanamatta, (5+11) bh. 3 m sg=D S+3 S D S.

XII. ATYASHITI, $17 \times 4=68$.

1. Sic'harin'i, (6 + 11) y m n s bh. l g = 12 S - 2 P I D I. 2. Prit'hwi, (8+9) j s j s y l g = I P2 I + Tr. T S I. 3. Vans'apatrapatita, or Vansapatra, (10 + 7) bh. rn bh. n l g = D 2TA+2PA. 4. Harin'i, (6+4+7 or 4+7) nsmrslg=2PI+2S+IAI. 5. Mandacranta, (4+6+7) m bh. n 2 t 2 g = 2 S+2 PI +CTS. 6. Narcut'aca, or Nardat'aca (7 + 10), or Avitat'ha (17 †), n j bh. 2 j lg = Tr. 21 +Tr. TIA. 7. Cocilaca, (7 + 6+4 t or 8 + 5 +4†)=Tr.2I + PIP + TI. 8. Hari, (6+4 +7) 2 n m r s l g = 3 P+2 S + I A I. g. Canta, or Cranta, (4+6+7) y bh. n r s $lg \equiv IS! + 2P$ I+1 A I. 10. Chitralec'ha, or Atisayani, (10 +7) 2 s j bh. j 2 g = 2 A 2 I+Tr. T S. 11. Malad'hara, or Vanamalad'hara, n s j s y l g = 2P 2 I Tr. T S I. 12. Harini, (4+6+7) m bh. n m y l g = 2S+2 P I+S B I.

XIII. DHRITI, $18 \times 4 = 72$.

1. Cusumitalata vellita, (5+6+7) m t n 3 y= M S+2 P I+C T S. 2. Mahamalica, Naracha, Lata, Vanamala, $(10+8\dagger)$ 2 n 4 r=3 P T S+I T S I. 3. Sud'ha, (6+6+6) y m n s t s= I 2 S +2 P I+S P I. 4. Harinapluta, (8+5+5) m s 2 j bh. r=S T 2 I+A I+A I. 5. Aswagati, 5 bh. s=5 D A. 6. Chitralec'ha, (4+7+7) m 2 n 2 t m=S T+P Tr. S+I T M. 7. Bhramarapada, bh. r 3 n m = D 2 T 3 P A S. 8. Sardulalalita, (12+6) m s j s t s=S D 2 T A+S P I. 9. Sardula, (12+6) m s j s t s m=S D 2 T A+T 2 S. 10. Cesara, (4+7+7) m bh. n y 2 r= 2 S +2 P A + S I C. 11. Nandana, (11+7) n j bh. j 2 r= 2 P T D I+2 I C. 12. Chitrasala,

Chitralec'ha, (4+7+7) m bh. n 3 y = 2 S + 2 PA+CTS. 13. Chala, (4+7+7) m bh. n j bh. r=2 S+2 PA+ IAI. 14. Vivud'hapriya, $(8+10 \dagger)$ r s 2j bh. r=2 T 2 I+ P 2 T 2 I. 15. Manjira, 2 m bh. m s m=3 S 1 S D 2 S. 16. Cridachandra, 6 y = 1 T P ITP. 17 Charchari, r s 2 j bh. r=T D ID 2 T 2 I.

XIV. ATIDHRITI, $19 \times 4 = 76$.

1. Sardulavicridita, or Sardula, (12 + 7) ms is 2 t g = SD 2T A + SIC. 2. Meg'havisp'hurjita, or Vismitra, (6+6+7) y m n s 2 r g=1 2 S +2 P I + C T S. 3. Panchachamara, 2 n = alternate g l=Tr. P7 I. 4. Pushpadama, (5-1-7+7) mtns2rg=MS+2PA+CTS. 5. Bimba, (5+7+7) m t n s 2 t g = M S+2P A+H SI. 6. Ch'haya, (6+6+7 or 12+7) y m n s b h.tg = I2S + 2PI + DSI. 7. Macarandia, I (6+6+7) y m n s 2 j g=I 2 S + 2 P I + I A I. 8. Samudratata, (8+4+7) j s j s t bh.g = I P 2 c+ PI+SIA. 9. Surasa, (7+7+5) mrbh. nyng = MT S+2 PA+ DI. 10. Manimanjari, y bh. ny2jg = IS2PA2T2I. 11. Chandramala, or Chandra, (10 + 9) 3 n j 2 n l = 5 P + D 3 P. 12. Dhavalanca, or Dhavala. 6 ng = 8 P A. 13. Sambhu, (7 + 6 + 6) sty bh. 2 m g=A S A S 8 3 S.

XV. CRITI, 20×4=80.

1. Suvadana, (7+7+6) m r bh. ny bh. lg = 2 S B + 2 P A + S P.I. 2. Vritto, or Gandaca, r j r j g l = 10 T. 3. Sobba, (6+7+7) y m 2 n 2 t 2 g = 1 2 S + 2 P A + T S B. 4. Gitica, or Gita, s 2 j bh. r s lg = A I P 2 T 2 I A I.

XVI. PRACRITI, $21 \times 4 = 84$.

1. Sragdhará, (7 + 7 + 7) m r bh. n3y = 2 S B + 2 P A + T S B. 2. Salilanid'hi, Sarasi Sidd'haca, Sasivadana or Dhritasri, nj bh. 3jr

=2 PTD I+2A 2 I. 3. Narendra, bh. r 2 n 2; 1/=D2 T 3 P 2 D S.

XVII. A'CRITI, $22 \times 4 = 88$.

1 Bhadraca, (10 + 12) bh. 1 nrnrng=D 2 T A+I Tr. 2 T A. 2. Madira, or Lalita, 7 bh. g=6 DTI. 3. Hansi, (8+14) 2m2 g 4n2 g = 4S+6 PS.

XVIII. VICRITI, $23 \times 4 = 92$.

1. As'walalita, or Adritanaya, (11 + 12) n j bh. j bh. j bh. lg = 2 PTDI + ITr. TDI.2. Mattacrida,, or Vajivahana, (8 + 15) 2 m t 4 n l g = 4 S + P A. 3. Sundari, (7 + 6 +10) 2 sbh. st 2 j = A PS + 2 P S + 2 D. 4.Ma'lati, or Madamatta, 7 bh. 2g = 7 D S. 5. Chitrapada, 7 bh. 1 = 7 D I. Mallica, 7 j lg = IPTIPTIPTIA.

XIX. SANCRITI, $24 \times 4 = 90$.

1. Tanwi, (5 + 7 + 12 + 12) bh. t n s 2 bh. n y = D S + 2 P A + 2 D 2 P S. 2. Durmila, 8 s = 8 A. 3. Cirita, 8 bh. = 8 D. 4. Janaci, 8r = TSITSITSITSI. 5. Madha'vica', 7 j y=IPTIPTIPTIPS.

XX. ATICRITI, $25 \times 4 = 100$.

1. Craunchpada, (5 + 5 + 8 + 7) bh. m s bh. 4ng = DS + DS + 4P + 2PA.S'ambhu, 8 m g = 11 S M.

XXI. UTCRITI $26 \times 4 = 104$.

1. Rhujangavijrimbhita, (8 + 11 + 7) 2 m t3 n r s l g=4 S + 4 P A + I A I. 2. Apavaha, (9+6+6+5) m 6 n s 2 g = S D 2 P + 3 P + 3P + AS. 3. Gauri, 8 m 2g = 13S.

From 27 to 900 syllables in the verse.

Dan'daga, $27 \times 4 = 108$ to $999 \times 4 =$

- 1. Chan'darishtiprayata, $2 n 7 r \equiv 2 \text{ Tr. } 6 \text{ C.}$
- 2. Prachita, 2 n 8 &c. r.

325 species from 9 to 333 feet viz. 2d Arna, $n \otimes r$. 3d Arnava, $2 n \otimes r$. 4th Vyala, $2 n \otimes r$. 8. Asocamanjari, $r \in r$. &c. = 15 &c. T. r. 5th Jimuta, 2 n 11 r &c.

Or 3. Prachita, 2 n 7 &c. y = 2 Tr. 7 &c. B.

- 4. Mattamatangalilacara, 9 &c. r = 9 &c. C.
- 5. Sinhavicranta, 2 n 10 &c. r.
- 6. Cusumastavaca, 9 &c. s = 9 &c. A.
- 7. Anangasec'hara, lg lg &c. = 15 &c. I.
- Alfo SALURA, 2 g 8 ns = S 12 PA.

VI. Half equal Metre; the stanza being composed of equal and similar couplets; but the couplets, of dissimilar verses.

- 1. Upachitra, (Upajati + Tamarasa). 1st 3 verse 3 s lg = 3 A I. 2d 3 bh. 2g = 3 D S.
- 2. Drutamaya, (Dodhaca + Tamara)a). 1st 3 bh. $2g \equiv 3$ D S. 2d $n 2y \equiv 2$ P 2 D S.
- 3. Vegavati, (Upachitra—penult Br. in 1st verse). 1st 3 s g = 2 A P S. 2d 3 bh. 9g = 2 D S. 4. Bhadraviraj (species of Aupach'handasica). (st t j r g = S P 2 T S. 2d m s j 2 g = S D 2 T n.
- 5. Cetumati. 1st sj's g = A I Tr. S. 2d bh. rn2g = T. 2 I Tr. S.
- 6. Ac'hyanaci (Upajati viz. alternate Indravajra and Upendravajra; some say, one verse Indravajra three Upendravajra.) 1st (and 3d) 2 t j2g=SIDTS. 2d (and 4th some say 3d) j-t j t2g=2IDTS.
 - 7. Viparitac'hyanaci (the converse of the preceding.) 1st j t j 2 g=2 I D T S. 2d 2 t j 2 g= SIDTS.
 - 8. Harin aplutá (Drutavilambita one syllable) 1st 3 s lg = 3 A I. 2d n 2 bh r = P I 2 A I.

- 9. Aparavaotra (species of Vaitálina: or Bhadrica + Málatí). 1st $2 n r lg \equiv 2 P A 2 I$. 2d $n 2 j r \equiv P 2 A 2 I$.
- 10. Pushpitágrá (species of Aupach'handasica). 1st $2 n r y \equiv 3 P 2 T S$. $2d n 2 j r g \equiv 2 P D 2 T S$.
- 11. Yavamatí. 1st $rjrj \equiv 6$ T. $\frac{3}{2}$ 2d jrj $rg \equiv 5$ I B.
 - 12. S'ic'há. 1st 28 l g = 7 Tr. P I.
- 13. Chanjá. 1st 30 l g = 7 Tr. P. 2d 28 l g = 7 Tr. P. 2d 28 l g = 7 Tr. I.
- 14. Lalitá. 1st r s l g = 2 T 2 I. 2d s n j g = A T r. 2 I.
- 15. Caumudí (Bhadricá + Chanchalácshic3). 1st 2 nr $lg \equiv Tr. P 3$ I. 2d 2 n 2 $r \equiv 3$ P T S I.
- 16. Manjusaurabha (Málati + Manjubháshiní). 1st n 2 j r = 2 P T 3 I. 2d s j s j g = A I P 3 I.

VII. Unequal Metre; the stanza being composed of dissimilar verses.

1. Udgata, 1st. verse sjsl = AITr. T. 2d nsjg = Tr. A 2 I. 3d bh.njlg = TTr. 2 A. 4th sjsjg = AIP3I. 2 varieties: viz. Saurabhaca, 3d verse rnbh.g

2 varieties: viz. Saurabhaca, 3d verse r n bh. g = T D 2 A. Lalita, 3d verse 2 n 2 s = 2 Tr. 2 A.

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2. Upast'hitaprachupita, 1st verse $[m \ s \ j \ bh]$. 2 g = S D 2 T D S. 2 d s n j r g = A 2 P T 6. 8d 2 n s = P A. 4 th 3 n j y = 5 P D S 2 varieties: viz. Bard'hma'n'a, 3 d verse 2 n s 2 n s = 3 P A. 3 P A Sudd'havira'lrishabha, 3 d verse t j r = S A 2 I.

3 P

3. PADACHATURUED'HA, in-creasing in arithmetical progression from 8 to 20 syll. viz. 1st verse 8, 2d 12, 3d 16, 4th 20.

6 species: viz. Apid'a, End in S Rest Br. Pratyápida, Begin with S or begin and end with

S. Manjari or Colicá, 1st and 2d verses transposed 12+8+16+20. Lavali, 1st and 3d transposed 16+12+8+20. Amritad'húrá, 1st and 4th transposed 20+12+16+8.

VIII. Supplement, under the denomination of GA'THA'.

- 1. Stanzas comprising four unequal verses, constituting a metre not described by writers on prosody
- 2. Stanzas comprising more or fewer verses than four; viz. three, five, six, &c.
- 3. Any metre not specified by PINGALA.
- 4. Metre not specified by any writer on prosody.

VII.

REMARKS upon the Authorities of Mosulman Law*.

BY J. H. HARINGTON, ESQ.

THE basis of Mohummudan law, religious, civil, and criminal, is the Korán; believed to be of divine origin, and to have been revealed by an angel to Мониммир; who caused it to be written and published, from time to time, as occasion required, for the refutation of his opponents, or the instruction and guidance of his followers: though the hundred and fourteen Soowur, or chapters, which compose the Korán, were not digested, in their present form, until after the death of Мониммир: when they were collected by his immediate successor Aboo Bukk; and were afterwards, in the 30th year of the Hijrah, transcribed, collated, and promulgated, by order of the Khuleefah Othma'n.

THE Korán being thus considered the written word of God, its texts, when clear and applicable, and not abrogated by other texts of subsequent revelation, are unquestionable and decisive. But, (as remarked by an eminent historian ‡,) "In all religions the life of the founder supplies the silence of written revelation: the sayings of Mahommet were so many lessons of truth;

^{*} These remarks are intended to form part an Analysis of the Laws and Regulations, for the civil government of the British territories, under the Presidency of Bengal. This work is designed for the use of the students in the college of Fort William; and the second part, which relates to Criminal Justice, is introduced by a summary of the Mohummudan law of crimes and punishments, for the purpose of rendering more intelligible the amendments of it enacted by the Regulations of the Governor General in Council.

⁺ V. Sale's Preliminary Discourse, Section III.

In chap. L. of the Decline and Full of the Roman Empire, relative to Arabia.

his actions so many examples of virtue; and the public and private memorials were preserved by his wives and companions." In fact, the ordinances of the Korán, in civil affairs are few and imperfect; and must have proved altogether inadequate to provide for the various objects of legislation, in a large and civilized community, without the aid of the Soonnut, or rule of conduct, deduced from the oral precepts, actions, and decisions, of the prophet. These were not committed to writing by Mohummun; but were collected after his death, by tradition, from his companions, (the Sahábah;) their contemporaries, (Tábiteen, literally, followers;) and successors (Tubâ-i-tábiteen;) and the authentic traditions, which have been preserved in numerous compilations of Ahádees, (dicta, factaque; precepts and transactions;) Sooman, (instituta vita, exempla; rules of practice and examples;) or Riwáyat, (relationes, reports;) constitute a second authority of Mosulman law; conclusive (if the authenticity and application of the traditions be admitted) in all cases not expressly determined by the words of the Korán*.

^{*} The collections of traditions held in the most general estimation, as genuine and authoritative, by the Soonees, or orthodox traditionists, are the following; denominated Siháh-i-sitta; or the six authentics.

^{1.} Saheeh-i-Bokháree. Compiled by Aboo Abdoollah, Mohummud, of Bokhárá. He was born Λ. H. 194; and died in the year 256; in the suburbs of Sumurkund. His compilation is said to contain above seven thousand traditions; selected from 500,000.

^{2.} Saheeh-i-Mooslim. By Aboo'r Hose'n, Mooslim, of Ny'shapoor. He died A. H. 261; and is also said to have compiled his work from 300,000 traditions. This and the preceding collection, when cited together, are called Saheehy'n, or the two authentics.

^{3.} Soonun-i-Ibn-i Majah. By Mohummud-Rin-i Yuzeed, Bin-i Majah: of Kuzeen. (Erroncously named Ben Mohummud, in D'Herbelot. Title Sanan Ebn Magiah.) He died at Kuzween, in Irak, A. H. 273.

^{4.} Soonun-i Aboo Dáood. By Aboo Da'ood, Soly'Ma'n, of Sejistan. He was born A. H. 202; and died at Busrah, in the year 275. His work is stated to consist of 4,500 traditions selected from 500,000.

THE schisms and dissentions, however, which took place among the Mohummudans, after the demise of their legislator and founder, especially the contest of the succession to the Khilafut, or pontificate, which gave rise to the Shiya, or sectaries of Alee, have occasioned various differences and disagreements, both in reading and interpreting the words of the Koran, and in admitting or rejecting the traditions, which compose the oral law. There

The four works last mentioned, when cited collectively, have the designation of Soonun-i-urba, or the four collects of traditions. The foort notices, which have been given, of their compilers, and of the authors of the Saheehyn, are taken chiefly from the Mirat-ool-aalum, an esteemed general history composed by BUKHTIYAR KHAN, in the reign of AURUNGZEE. They are confirmed, with many other particulars, in the Mishkat, a work of authority on the traditions admitted by the Soonees; and used, as a class book, in Mosulman Colleges, with the Saheeh-i Bokharee, and Saheeh-i Mooslim. The author, SHYKH WALEBOODEEN, ABOO ABDOOLLAH, MAHMOOD, who finished his undertaking (to verify and illustrate the traditions contained in a foriner compilation, called the Musabeeho' soonnut, by Hosen Bin-I Musoc-ood, Furage) A. H. 737, states that the Mowutta of MALIKIBIN ANS, (the founder of the second orthodox sect, who died A. H. 179) is, by some reckoned one of the sixth authentic collections, instead of the Soonun-i Ibn; Majah. He adds that others are of opinion, the Darumee, compiled by ABOO MOHUMMUD ABDOOLLAH of Sumurkund, surnamed DARUMEE, who was born A. H. 161, and died in 255, should be classed as the sixth authentic. But he has himself given this place to the compilation of Mohummun, the grandson of Majah; and it is commonly placed third in the series, with reference to the supposed order of publication.

^{5.} Jáma-i Tirmizee. By Aboo Ieesa Mohummud, of Tirmiz, in Toorkistán. He is also surnamed Zureer or Dhureer, from his blindness. His birth was A. H. 209; and his death in 279. His compilation is noticed by D'Herbelot, under the title of Giame al Kebir; and is erroneously cited (apparently from D'Herbelot,) in Hamiltons, Preliminary Discourse, page 36, as quoted in the Hidáyah: instead of the Jáma-i-Kubeer, on fik-h, or jurisprudence, by Imam Mohummud.

^{6.} Jama-i Nisáet; called also Soonun-i Nisáee. By Aboo-i abd oo Rahman Ahmud, of Nisa, a city of Khorasan. He was born A. H. 215; and died in the year 303. This collection is selected from a former compilation, by the same author, called the Soonun-i-koobra; and mentioned by D'Herbelot, under the title of Sonan Al Kebir.

appear to be an error, or verbal inaccuracy, in the observation of the learned, and in general accurate, translator of the Korán, that "the Sonnites receive the Sonna, or book of traditions of their prophet, as of canonical authority; whereas the Shiites reject it as apocryphal, and unworthy of credit *." From this remark it might be inferred, that the Shiyá reject the traditions altogether; whereas they admit many which are not deemed authentic, and are consequently rejected, by the Soonees. They have also their collections of Ahádees, and Soonan, which they deem genuine and authoritative †. The difference between them, and the Ahl-i-Soonnai, or othodox traditionists, who, as remarked by Mr. Hamilton, appear to have assumed this title of distinction, "in opposition to the innovations of the sectories \$\psi\$," lies, as far as respects

^{*} SALE's Preliminary Discourse, Section VIII.

[†] MOULAVEE SIRAJ OO'DEEN ALEE (one of the law officers of the courts of Sudr Deewanee and Nizamut Adalut, as well as of the Supreme Court, and employed by the late Sir W. Jones, to compile he Sheeah part of a Digest of Mosulman Law, upon contracts and inheritance) states the Kooloob-i urba, or four books of traditions, held authentic by the Shiya, to be the following:

^{1.} Tahzeeb. 2. Istibsar. Both compiled by Aboo Jafur Mohummun, of Toos in Khorasan.

^{3.} Jama-i Kafee. By Mohummud Bin-i Yakooe. Of Ry in Persian Irak.

^{4.} Mun la Yahzoorb ool-fukech. By Mohummud-Bin Alee, of Komm, also in Irak-i Ajum.

The third of these collections, which quotes the compiler of the two first, is said to have been presented to IMAM MAHDEE, who was born A. H. 255. The author of the fourth compilation is stated in the *Mujalis ool-Momuneen*, to have been contemporary with, and protected by, the Persian King Rokn-00'Doulah, who died, A. H. 366.

[‡] Preliminary Discourse to his translation of the *Hidayah*, page 22. His observation, at length, is "the *Mussulmans*, who assume to themselves the distinction of orthodox, are such as maintain the most obvious interpretation of the *Koran*, and the obligatory force of the traditions, in opposition to the innovation of the sectaries; whence they are termed *Soonis*, or traditionists." This, however, is partly open to the same objection, as has been stated to the remark of Mr. Sale.

the traditions, in the different authorities, which are admitted by the two sects for the Ahaadees, received by them respectively. The Soonees allow traditionary credit to the Sahabah, or companionsof their Prophet; especially to the most eminent amongst them, or those who had the longest and most familiar intercourse with Mohummud; and to the Khoolfa-i rashideen, or the four Khuleefahs, who were the immediate successors of the Prophet; and instructed by him in the principles, and tenets of his religion. Also to several intelligent and learned men, who were contemporary with the companions and first Khuleefahs, and who are included in the general description of Tabiteen already mentioned; as well as to others, who succeeded these; (the Tuba-i-tabi-ieen;) and have verified their reports of traditions, by citing the names of the persons, through whom they were successively traced to their genuine source, the inspired Apostle of God*.

THE Shiyá, on the contrary, gave no authority, or credit, to the three first Khuleefahs, Aboo Bukr, Omur and Othma'n: nor to any other companions of Mohummud, excepting such as were partisans of Alee. They extend their faith and obedience, however, to the admission of all traditions of their Pro-

^{*} The nature of this treatise does not admit of a fuller account of the Soonee tradititions; which are distinguished by some authors as Saheek (authenticated;) Husun (approved:) Zaieef-o-ghurceh (weak and poor;) Moonkur-o-mouzooa (denied and imposed:) by others, as Moosnud (vouched or certified;) and Moorsul, or Moonkuta (detached or divided.) The Moosnud are also subdivided as Murfooa (ascending to the Prophet;) Moukoof (resting with the Sahabah;) and Muktooa (severed or cut short among the Tabiicen;) or by any other classification as Mootawatur (repeated, successive;) Mush, hoor public, notorious; and Wahid (single, particular.) The Mishkat, referred to in a former note, has however been translated by an officer of the Bengal establishment, and if it receive sufficient encouragement to repay the heavy expence of printing in India, it will be speedily published.

phet's sayings and actions, which they believe to have been verified by any one of the twelve Imámeeyah; as well as to the precepts and examples of those Imams themselves; the whole of whom they venerate, as being the lineal descendants (through Fa'timan), and according to their tenets, the rightful successors, of Mohummud; and the last of whom they believe to be still living, though invisible; it having been predicted of him, that he will return to judge and rule the world; to punish sinners, and those who have departed from the true faith; and to restore and confirm the genuine truths of religion, with piety, justice, and every other virtue *.

When neither the written nor oral law prescribes a rule of decision, the concurrence of the companions of Mohummun (Ijmá,a-i Sahabah) is received by the Sŏonees, as a third source of legal authority: and if

[•] The names of the twelve Imams are given by D'HERBELOT, under the head of Imam. He has also given a brief statement of the tenets of the Shiya, under the titles of Schiah, Ali, and other titles of his valuable, though (as might be expected in so voluminous and miscellaneous a work) sometimes erroneous and often imperfect compilation. A fuller account of the doctrines, and practice of the Shiya is contained in the 2d vol. of Chardin. (Description de la Religion des Persans, in the Amsterdam Edition of his Voyage en Perse published in M.DCC.XI.)

But the most authentic information upon the jurisprudence of the Imámeeyah sect, (which not having been established, for the administration of justice, in any part of the Company's territories, needs not to be further noticed in this tract,) will be furnished by the completion of a work, the first volume of which is already printed,) and entitled—"A Digest of Mohummudan "Law, according to the tenets of the Twelve Imams; compiled under the superintendence of the late Sir William Jones: extended, so as to comprise the whole of the Imamees code of jurisprudence, in temporal matters; and translated, from the original Arabic, by order of the Supreme Government of Bengal; with Notes, illustrative of the decisions of other sects of Mohummudan lawyers, on many leading and important questions. By Captain Jones Ballle, Professor of the Arabic and Persian Languages, and of Mohummudan Law, in the

[&]quot; College of Fort William."

this also fail, they allow the validity of reason, restricted by analogy, (kiyas) in applying, by inference, the general principles of law and justice, to the various transactions and circumstances of the changeful scene of human life; which, as they could not be all foreseen, it was impossible they should be completely and expressly provided for. This is so clearly stated, with the origin of the principal Sŏonee sects, who agree in matters of faith, (akaeed,) but differ on points of practical jurisprudence, (fik,h,) in a section of the Mokhtusur ŏo dowul (compendium of dynasties) of Gregorius Aboo'l Furus, translated (into Latin) by Pocock, in his Specimen Historiæ Arabum; that the following English version will not, it is persumed, be unacceptable; especially as both the Arabic original and Latin translation, are little known in India *.

"Of the sects (Muzáhib) which differ upon the branches, or derivative parts of the law, concerning rules of jurisprudence, and cases of disquisition, four are the most celebrated: viz. those of Malik Bin-i' Ans; of Mohummud Bin-i Idrbes, ŏo' Sh'afiĵee; of Ahmud Bin-i Hunbul; and of Aboo Huneefah Naôma'n Bin-i Tha'bit. The fundamental grounds of disquisition (Ijihad) are also four; the scripture (kitab;) the traditionary law (Sŏonmut;)

[•] Aboo'l Furus was a Christian, born at Malathia in Aladulia, or Armenia minor, A. C. 1226. But he wrote in Arabic, and appears to have been well versed in the religion and law, as well as in the history, of Arabia. V. Pocock's Specimen Historice Arabum, comprising an extract from the dynasties of Aboo'l Furus, which, Gibbon observes, "form a classic and original work on the Arabian antiquities." Published at Oxford, in 1650. Also the complete Latin version of the original work, by Pocock, published in 1663. Gibbon has added, upon this, however, that "it is more useful for the literary than the civil history of the East." Cap. LI. n. 13.

the concurrence of the prophet's companions (limaå;) and analogy, or analogical reasoning (kiyas.) For, when any legal question arose, respecting what was lawful or unlawful, a regular investigation took place, in the following man-First, they searched the book of Almighty God (the Koran;) and if any clear text were found in it, such was adhered to. But, if not, they sought for a precept, or example, of the Prophet; and abided by it, if applicable, as decisive. If none such were discovered, they inquired for a concurrent opinion of the zahabah; who, being directed in the right way, are not open to suspicion of misleading; and therefore, if their sentiments could be ascertained, on the point in question, they were deemed conclusive. If not, an ultimate resort was had to analogy and reason; the variety of contingent events being infinite; whereas the texts of the law are finite. It thus appears certain that the exercise of reason may be proper and necessary in legal disquisition. IMA'M DA'OOD of Isfahan, however, entirely rejected the exercise of reason; whilst, on the contrary, ABOO HUNEEFAH was so much inclined to it, that he frequently preferred it, in manifest cases, to traditions of single authority. But Ma'LIK, Shafilee, and IBN-I HUNBUL, had seldom recourse. to analogical argument, whether manifest or recondite, when they could apply either a positive rule, or a tradition. This gave rise to their different opinions and judgment; which are recorded in books that treat of their disputations; yet neither infidelity, or error, is to be charged against them on this account."

THE four principal jurists, and founders of sects, among the soonees, who are noticed by Aboo'l Furus, have been particularly mentioned in the notes of Pocock's Specimen, already referred to; in the Bibliotheque of D' Her-

BELOT; and in the preliminary discourse of Sale and Hamilton*. The doctrines of Ma'lik, and Ibn-1 Hunbul, are not known to prevail in any part of *India*. Those of Sha'file have a limited prevalence on the sea coast of the peninsula; and are understood to obtain among the *Malays*, and other Mosulman inhabitants of the Eastern Islands. But the authority of Aboo Huneefah, and his two disciples, Aboo Yoosuf and Im'am Mohummud, is paramount, and exclusively governs judicial decisions, in *Bengal* and *Hindoos*-

Their names, at length, are-1. Aboo Hunbefah Naôma'n bin-1 Thabit: or, as pronounced in India, Sabit. 2. Aboo Abboollah Malik bin-i-ans, or, as otherwise read, ANUS. 3. ABOO AEDOOLLAH MOHUMMUD IBN-I-IDREFS OO'SHAFIÎEE, or a descendant from SHAPIR. 4. ABOO ABDOOLLAH AHMUD IBN-1 HUNBUL. The first is commonly called ABOO HUNEEFAH, meaning the father of HUNEEFAH, and therefore is improperly cited, in the translation of the Hidayah, by the name of Huneefah only; which, moreover is a feminine appellation, and was the name of the second wife of ALEE. (Vide Tit. HANIFAH, in the Bib. of D'HERBELOT,) He was born at Koofah, about A. H. 80; (some say ten, and others twentyone, years earlier;) was instructed in the traditions, by IMAM JAFUR-1 SADIK, the sixth Imam; who, as an authority for the precepts and actions of Mohumud, is esteemed by the Soonees, as well as by the Shiya; (not the Sheeah Doctor, ABOO JAFUR, mentioned in a former note; as erroneously stated in Hamilton's Preliminary Difcourse, p. xxiii. Vid. Tit. Giafar in the Bib. Or.) and died in prison, at Bughdad, in the Khilafut of Munsoon, A. H. 150. The founder of the second sect is known by his proper name Malik. He was born at Mudeenah, between the years 90 and 95 of the Hijrah; and died, at the same place, in a state of religions retirement, during the reign of Haroon oo'Rusheed, A. H. 179. The patronymic, Shafiee, usually distinguishes the third leader: who was born at Gaza or Ascalon, in Palestine; in the hundred and fiftieth year of the Hijrah; and died at Cairo, (where the famous SALAH OO DEEN, some centuries asterwards, founded a College, in honour of his memory and doctrines,) A. H. 204. The last chief, Ahmud, is more generally called, from his father, Ien-1 Hunbul. He was born at Bughdad, or according to some at Murv, or Muroo, in Khorasan, A. H. 164, and died at Bughdad, where he attended the lecture of Shafiles, A. H. 241.

tan, as well as at Constantinople, and other seats of Mohummudan dominion in Turkey and Tartary. It will therefore be sufficient to state the system of Aboo Huneefah, with the illustrations, and amendments of Aboo Yoosuf and Im'am Mohummud*; noticing, after the manner of the Hidayah, any particular opinions of the other orthodox sects, upon points of importance, which may appear to require it.

IT has been remarked by Sir W. Jones, in his preface to the Sirajeeyah +, "that although Aboo Huneefah be the acknowledged head of the prevail-

^{*} Aboo Yoosuf Yakoob bin I leraaeem ool Koofee, was born at Koofah, A. H. 113; and after finishing his studies under AbooHuneeDah, was appointed Kazce of Bughdad by the Khalleefah, HADEB. He was afterwards, in the reign of HAROON OO' RUSHEED, made Kazee ool Koozat, or chief Judge; and retained that high station, (which is said to have been first instituted for him) until his death, A. H. 182-Aboo Abdoollah Mohummud bin-i Husun oo' Shybanee (of the tribe of Shyban) who is usually called IMAM MOHUMMUD, was born at Wasit in Arabian Irak, A. H. 132. He was a fellow pupil with Aboo Yoosuf, under AbooHunebfah, and on the death of the latter, continued his studies under the former. He is also said to have received instruction from Malik. He was appointed by Haroon oo'Rusheed to administer justice in Irak-i Ajum or Persian Irak, and died at Ry, the former capital of that province, A. H. 179: or, according to the Rouzut oo'riyaheen, an esteemed history from the commencement to the 759th year of the Hijrah, by YAFILEE, A. H. 189. (See further particulars respecting ABOO YOOSUF and IMAM MOHUMMUD, in HAMILTON'S Preliminary Discourse). ZOOFUR BIN-1 HOOZEL, and Husun Bin-1 Zivan, (the former of whom held the appointment of chief magistrate at Busrah, where he died A. H. 158) were also two distinguished contemporaries, and scholars, of ABOO HUNEEFAH; and are sometimes quoted as authorities for his doctrines; especially when the two principal disciples are silent.

[†] A work of authority upon the Mohummudan law of inheritance, translated and published, with a commentary, by Sir W. Jones, in the year 1792. This is the only part of the Mosulman Digest, undertaken by the venerable judge in 1788, which his various avocations and studies allowed him to complete. He deemed it worthy of being exhibited entire, as containing the "Institutes of Arabian law on the important title mentioned by the British legislature (in the Statute 21 George

ing sect, and has given his name to it, 'yet so great veneration is shown to Aboo Yoosuf, and the lawyer Mohummud, that, when they both dissent from their master, the Moosulman judge is at liberty to adopt either of the two decisions, which may seem to him the more consonant to reason and founded on the better authority." This remark corresponds with the received opinion of present lawyers; and is sanctioned, for the most part, by a passage to the following effect in the Hummadeeyah *. "Futwas (law decisions, or opinions) are given primarily, according to the doctrine of Aboo Yoosuf; next accord-

III. Chapter LXX) of inheritance and succession to lands, rents, and goods." And it is of particular value to the jurisprudence of British India, as the Hidayah, translated by Mr. HAMILTON, does not include the law of inheritance. It has not been ascertained when the author of the original treatise lived. But the Kushf oo' Zunoon, (or dhunoon, as pronounced in Arabia) the biblica graphical work of HAJEE KHULFAH, which furnished materials for a considerable part of the Bibliotheque Orientale, (Vid. GALAND's preface, p. xiv. Ed. M.DCC.LXXVI.) mentions it, under the title of Furavid oo' Sujawundee in the following terms; together with the date of the commentary of SYYUD SHUREEF; the substance of which is given by Sir W. Jones, with that of a recent Persian comment, by Moulavee Mohummud Kasim, who was employed by Mr. Hastings to translate, from the Arabic into Persian, both the Sirajeenah and the Shuree feenah. "Tie Furavid-oo' Sujawundee, composed by IMAM SIRAJ OO'DEEN, MAHMOOD BIN-I ABD OO' RUSHEED, of Sujawund, is commonly called the Fura, eezi Sirajeeyah. It is held in high estimation and in general use. Many of the learned have written commentaries upon it, to the number of forty; the best of which is the comment of SYYUD OO'SHUREEF ALEE BIN-1 MOHUMMUD, of Joorjan: finished, Sumurkund, in the year (of the Hijrah) 104. This commentary is of the first authority. and universally received. Several Scholiasts, of erudition, have given annotations upon it.

* A collection of legal expositions, by Aboo'l futha, Rokn of deen ibn-1 Hosam, Meoftee of Nagor, in the Dukhun; and dedicated to his teacher, Humad oo' deen, Ahmud, chief Kazer, of Nuhr walah. The time when this work was compiled is not exactly known; but, thought of modern date, it is held in considerable estimation. The court of Nzamut Adalut possess a complete copy, obtained for them, with some other law books, by Lord Teignmouth, from the Nuwab Vizzer, in the year 1797.

Ing to Im'am Mohummud next according to Zoofur; and then according to Husun bin i Ziy'ad. It is said, that if Aboo Huneefah be of one opinion, and his two disciples of another, the Mooftee is at liberty to chuse either; but the preceeding rule must be observed, when the Mooftee is not a scientific jurist; (and therefore not competent to judge of the opposite opinions.) This is copied from the koonyah *. In judicial decreees however a preference is given to the doctrine of Aboo Yoosuf (who was an eminent judge); for Imam Surukhsee †, has declared it safe to rely upon Aboo Yoosuf in judicial matters; and that the learned have followed him in such cases; though if there be a difference between the two disciples, which ever agrees with Aboo Huneefah must be preferred. The joint opinion of the disciples may also be adopted, though different from that of Aboo Huneefah, if the difference appear to proceed from a change of human affairs; (lit. a change of men, and alteration of times;) and modern lawyers are agreed, that the doctrine of the two disciples may be taken for adjudication in all matters of civil justice."

IT appears, however, that the acnient jurists held the authority of Aboo Huneefah to be absolute, although both his disciples might differ from him. This is stated, without reservation, in a chapter, "on the order of authorities to be observed in practise," forming part of the book entitled

^{*} A law tract often quoted in the Futawa-i Aalumgeeree, not known to be at present extant and by whom composed, has not been ascertained.

[†] Shums ool Aimman, Aboo Burr Mohummud, native of Surukhs, in Khorasan. The Moheet composed by him will be mentioned in a subsequent note. He also wrote a commentary on the Jama-i Sugheer of Imam Mohummud; and a comment upon the Kefce ool Hakim, (stated in the Kushf-oo'zunoon to have been composed by Harim-i Shaheed, Mohummud; but no longer extant,) which is called Mubsoot-i Sarukhsee, and often quoted in the Hidayah. He died, at the place of his nativity, A. H. 483.

Adáb ool kázee, or duties of the kázee, in the Futáwá-i Aálumgeerce, or collection of law cases, compiled by order of the Emperor AA'LUMGEER. The same chapter contains other useful information upon the rules and discretion, under which the Mosulman magistrate is empowered to administer justice; and as it is not long, a literal translation of it is here introduced; omitting only a quotation from the Mubsoot, which being nearly a repetition of that given from the Budayiá, the insertion of both appeared superfluous.

" IT is incumbent upon a kázee (or judge) to give judgment according to the book of God; to know what parts of the divine book are in force, and what have been abrogated; to be able to distinguish between the texts which are clear and positive; and such as are of doubtful meaning, having obtained a different interpretation from the learned. If no rule be found in the book of God, the kázee is to decide according to the traditions from the Prophet. He must therefore be competent to discriminate those in force from such as have been superseded; and the spurious and invalid, from such as are genuine and authoritative. He must be acquainted with those which have obtained successive, notorious, or single, verification; and withthe character and credit of the reporters of them. Because some are celebrated for their knowledge of jurisprudence (fik-h o adalut;) as the four first khuleefahs, and the three ABDOOLLAHS, (viz. ABDOOLLAH IBN-1 OMUR, ABDLOOLAH IBN-1 ABBA'S, and Abdoollah ibn i Musôood, three of the more learned of the companions;) whilst others are esteemed on account of their long and familiar intercourse with the Prophet, and their perfect recollection of the traditions; and they are preferred accordingly; the former as the best authorities on the general principles of legal science; the latter for the authenticity of par-

ticular traditions. If a case arise to which none of the traditions, derived from the Prophet, may be applicable, let the kazee determine it according to the concurrent opinion of the Sahabah (companions), for their concurrence affords a just and obligatory rule of conduct. If there be a difference of opinion among the companions, let the kazee compare their respective arguments, and follow those which, on investigation, may appear to him preferable; supposing him qualified to enter into such a disquisition. He is not authorized to reject the whole of these opinions, and adopt a judgment of his own, altogether novel. For the companions have agreed upon this point, that although they may differ from each other, it is not lawful to institute new doctrines, at variance with the whole of them. Khusuf* holds the contrary opinion, that when the companion differ, the kazee may adopt a judgment altogether distinct, as their dissention affords ground for disquisition: but what is above stated has the best foundation. When the companions have agreed upon a point, in which one of their followers (tabileen) has dissented from them; if the dissenter was not their contemporary, his opposition has no weight; and a judgment given conformably thereto, against the concurrent opinion of the companions, would be invalid: but if he were contemporary with them, and then expounded the law in opposition to their opinions, and they gave sanction to his disquisitions,

^{*} IMAM ABOO BUKR, AHMUD BIN-I OMUR, surnamed KHUSAF, or the farrier. He composed the most celebrated of the works known under the title of Adab ool Kazee, or duties of the Kazee; and is stated, in the Kushf oo Zunoon, to have died A. H. 261. A high encomium is added upon his composition; which is said to consist of 120 Chapters, replete with useful information. Several learned men have written commentaries upon it, of which the most esteemed is that of IMAM OMUR BIN-I-AED-OOL-AREEZ, commonly called Hoosam, the martyr, A. H. 526.

as in the instances of Shory'A and Shabee*, the concurrence of the companions does not bar the opposite exposition, so admitted. With respect, however, to expositions which have no other authority than part of the Tabileen, there are two reports of the sentiments of Aboo Huneefah. One, that he did not consider such to be authoritative: and this appears to be the true doctrine. The other, contained in the Nurvadir †, states, that if some of the followers of the companions have given Futwas in their time, and have received from the latter a sanction to their disquisitions; as Shory'A, Husun‡, and Musrook bin-i Ajda ||, their decisions should be observed. It is thus written in the Moheet §.

^{*} The first was Kazee, the second Mooftee, of Koofah, in the first century of the Hijrah; and they were esteemed two of the most learned men of their age. The former, whose name at length, is Aboo Omyyah Shorya bin ool Hiras ool Kindee, held the station of Kazee, at Koofah, for seventy-five years, and died A. H. 78 or 80; after resigning his office the year before his death. The entire name of the latter is Aboo Omur Aamir bin-1 Shurahee oo Shabef, deriving his surname from the town of Shab, in Arabia. He died A. H. 104.

[†] Ten different works of this name, (meaning, literally, rare, scarce) are specified in the Kushf of Zunoon; of which one was composed by IMAM MOHUMMUD, the disciple of ABOO HUNEEFAH; and it is probably that here referred to. It is considered to be of less authority than his five other works, the Jama-i sugheer, Jama-i kuheer, Mulsoot, Zecadat, and Siyur, which are well known, and frequently quoted, under the general designation of Zahir oo Ruwayat, the conspicuous reports.

[†] Vid. Bib. Or. Tit. Hassan al Basri.

A learned native of Hamadan, who became a convert to Islam, during the life of Mohummad; and died at Koofah, A. H. 62-

[§] There are three works of this title; all of which are quoted in the Futawa-i Aalumgeeree; but the two others are distinguished by the addition of Surukshee or Boorhanee. The two latter will be mentioned in a subsequent note. The Moheet, here referred to, is supposed to have been written by Moulana Ruzhe oo deen of Nyshapoor, who, in the notes prefixed by Syyud Ahmud-1

"IF the concurrent opinion of the companions be not found in any case, which their followers may have agreed upon, the Kázee must be guided by the latter. Should there be a difference in opinion between the followers, let the Kazee compare their arguments and adopt the judgment he deems preferable. If, however, none of the authorities referred to be forthcoming, and the Kázee be a qualified jurist; (Ahil ool-Ijtihád, literally a person capable of disquisition;) he may consider in his own mind what is consonant to the principles of right and justice; and applying the result, with a pure intention, to the facts and circumstances of the case, let him pass judgment accordingly. But if he be not a qualified person, let him take a legal opinion from others who are versed in the law, and decide in conformity thereto. He should, in no case, give judgment without knowledge of the law; and should never be ashamed to ask questions for information and advice. It is further requisite that the Kázee attend to two rules: first, that when the three Imáms (ABOO HUNEEFAH. ABOO YOOSUF, and IMA'M MOHUMMUD) all agree, he is not at liberty to deviate from their joint opinion, upon his own judgment. Secondly, when the Imams differ, Abdoollah bin-i Moba'ruk * says, the Kázee's sentence is to be given according to the opinion of ABOO HUNBEFAH, because he was

Humavee to an old copy of the Hidayah, purchased at Mukkah, is said to have compiled the opinions of the followers of Aboo Huneefah, in a regular series; whereas other compilers had blended them. This Moheet, however, is not extant in India, and is only known by quotations from it.

^{*}One of the pupils of Aboo Huneefah, surnamed Muroozee from Muroo, the place of his nativity. He was held in high veneration for his piety, and his tomb is said to be visited, at Hit, in Arabian Erak, (Vid. Bib. Or. Tit. Abdalla). He died at the age of 63, A. H. 180, (Mirat ool-adlum).

one of the immediate followers, and contemporaries, of the companions, and opposed them in the futwas. So it is in the Moheet of Surukhsee*.

"If no precedent be found from Aboo Huneefall and his disciples, and the case have been determined by subsequent lawyers, the Kazee is to abide by the judgment of the latter; unless there be a difference in their decisions, in which event the preference is left to his discretion. If not even a modern precedent be forthcoming, the Kázee may exercise his own reason and judgment; provided he be conversant with jurisprudence, and have consulted with sages of the law. In the commentary of Taha'vee; it is stated, that if the Kázee pass sentence on his own judgment, in opposition to the manifest letter of the law (Nuss), such sentence is not valid. But if the sentence be not contrary to the clear letter of the law, and the Kazee, after passing it, should change his opinion, his former judgment is, nevertheless, valid: though his future adjudi-

^{*}The author of this work, which is extant, and held in high estimation, is stated, in the Kushf of Zunoon, to be Shums ool aimman, Aboo Bukk Mohummud, of Surukhs, mentioned in a former note. The Moheet-i Boorhanee, composed by Boorhan oo' deen-Mahmodd bin-i Ahmud, is also noticed in the Kushf 20 Zunoon; but without any other particulars of the author. He is mentioned by D'Herbelot, under the title of Sarakhsi, as having been born at Surukhs; and having gone from hence into Syria, where he superintended a College at Aleppo; and died at Damascus, A. H. 571. His Moheet is known in India; and an incomplete copy is possessed by the court of Nizamut Adl ut; but it isless esteemed than that of Shums ool Aimman.

[†] IMA'M ABOO JAFUR AMUD BIN-1 MOHUMMUD, of Tabá (a town in Upper Egypt) is one among the numerous commentators of the Jama-i Sugheer of IMAM MOHUMMUD. He also wrote an abridgement of the doctrine of Aboo Huneefah, and his two disciples, intitled Mokhtusur-i Tahavee. Both works are often quoted, as authorities, but are not known to be now extant. He is stated in the Kushf oo Zunoon, to have died A. H. 371.

cations must be regulated by his recent opinion. This is the doctrine of the two elders (Suy'khy'n, viz. Aboo Huneefah and Aboo Yoosuf,) and Ima'm-Мониммир agrees with them, provided tle second opinion of the kazec, in such cases be deemed by others preferable to the first. It is further stated (by TAHA'VEE), that if the ancient jurists have formed different opinions upon any point, and their successors have agreed upon the opinion to be preferred; according to the two elders, this agreement does not remove the effect of the former difference; but IMA'M MOHUMMUD thinks it is removed thereby. SHY'KH OOL ISLAM SHUMS OOL AIMMAH SUBUKHSEE, reports, however, that all the disciples of Aboo Huneefah agree in opinion upon this point, and that a few of the learned only hold the continuance of the original dissent, notwithstanding the subsequent agreement. If the lawyers of one age concur in any particular doctrine, and a kazee, in after times, differing in opinion from them, with an upright intention, pass an opposite judgment; some hold his so doing to be legal, provided there were an original difference among the learned upon the doctrine in question; whilst others deem it illegal, notwithstanding such original difference; but all agree upon the illegality of the opposite judgment, supposing no difference of opinion to have been at any time entertained upon the subject. In the Futawa-i Itabiyah* it is stated, that if a kasee take an exposition of the law from a Mooftee, and differ in opinion from the latter, he is to pass sentence in the case according to his own judgment; provided he be a person of understanding and knowledge; and that if the sentence be passed

^{*} The author of this work, Aboo Nusr Ahmud Bin-1-Mohunmud ool Itaber, of Bokhara, is mintioned in the Kushf oo Zunoon as having also written a commentary on the Jama-i Sugheer of IMAM MHUMMUD. He died A H. 585.

against his own opinion, in deference to that of the Mooftee, it is according to the two disciples (Sa'htby'n, viz. Aboo Yoosuf and Ima'm Mohummud) invalid: in like manner as in matters of religious preference on presumption it is forbidden to act upon the judgment of others: but Aboo Hunderah holds the sentence to be valid in such cases, as it is the result of legal disquisition. Supposing the kasee not to have exercised his own reason on the case, at the time of his giving judgment according to the opinion of the Mooftee; and that he subsequently forms an opinion, at variance with that of the Mooftee; Im'am Mohummud says, his sentence is liable to abrogation; but Aboo Yoosuf affirms, it is not affected thereby; in the same manner as it would not be affected if the kazee had passed sentence on his own opinion, and had afterwards changed that opinion. The foregoing is copied from the Tatarkhanee-yah*."

"When there is neither written law, or concurrence of opinions, for the guidance of the kazee, if he be capable of legal disquisition, and have formed a decisive judgment on the case, he should carry such judgment into effect by his sentence, although other scientific lawyers may differ in opinion from him; and should not be governed by their sentiments, in opposition to his own; for that which, upon deliberate investigation, appears to be right and just, is accepted as such in the sight of God. If however the persons, who declare an opinion different from that of the kazee be superior to him in science, and he consequently adopt their judgment, questioning the grounds, of it, from

^{*} Vid. Bib. Or. Tatarkhan. An imperfect copy of the work referred to, entitled Futawa-i Tatarkhanceyah, is in the possession of the court of Nizamut Adalut.

respect to their superior knowledge, ABOO HUNEEFAH admits the legality of his proceeding. Aboo Yoosuf and Im'Am Mohummud, on the contrary, do not allow it to be legal, unless he ultimately adopt their opinion as he result of his own judgment. This, at least, is one report: but another says, that the master and his two disciples held, respectively, the reverse of what has been mentioned. If in any case, the kazee be perplexed by opposite proofs, let him reflect upon the case, and determine as he should judge fright: or, for the greater certainty, let him consult other able lawyers; and if they differ, after weighing their arguments, lct him decide, as appears just. Should they agree with each other, but differ from his own opinion on the case, he is to adhere to the latter until he be convinced it is ill founded, and may give judgment accordingly; but not precipitately, or until he has duly weighed and examined the whole of the circumstances and evidence. Let him not fear or hesitate to act upon the result of his own judgment, after a full and deliberate examination: but let him beware of a doubtful and conjectural decision, without complete investigation, as such will not be approved in the account of his actions to God; though, from want of certain information to the contrary, it may pass as a valid sentence among men. What has been here said supposes the kázee to be a Moojtahid, or scientific jurist, competent, from his talents and learning, to undertake legal disquisition. If he be not a person so qualified, but possesses a knowledge and full recollection of the points and cases determined by the eminent lawyers of his persuasion, let him give judgment according to the tenets of those in whom he confides; and whom he believes it right to follow. Should he not have a perfect recollection of decided law-points, let him act upon expositions of the law, by Mooftees of the orthodox doctrine; or if there be only one such Mooftee on the spot, his single exposition may be acted upon, without fear of imputed deficiency. It is thus written in the Budáyiá *."

"The legal meaning of Ijtihad is the diligent exercise of the mental faculties in search of the thing desired; and the requisite qualification of a Moojtahid, is a discriminative knowledge of what is contained in the book of God, and in the traditions from the Prophet, relative to legal rules and ordinances (ahkam.) It is not essential that he should also know the moral precepts and admonitions included therein. It has been likewise declared that a person, whose general rectitude exceeds his deviations from right, may lawfully practise Ijtihad, or disquisition. But the definition above given is accurate: as stated in the Fosool ool Imadeeyah. The most correct account given of a Moojtahid is, that he have a comprehensive knowledge of the divine book, with the different interpretations thereof; a full acquaintance with the traditions, their gradations, texts, and comments; a right understanding, or power of just reasoning;

[•] A commentary on the Tohfut ool Fokaha, of Shykh old oodeen Mohummad, of Sumurkunds by his pupil, Aboo Bukr, ein-i Musoood, of Kashan, in Persian Irak. The author of the Kushf oo' Zunoon states the death of the latter to have been A. H. 587; and adds the master was so well pleased with the comment of his scholar, that he gave in marriage to the latter his daughter Fatimah, who was also learned in the science of jurisprudence. The entire name of the commentary is Budayia oo' Sunayia fee turteeh oo Shurayia. Both the text and comment are quoted as authorities; but neither is known to be now extant in India.

⁺ By Abool furth Mohummud Bin-1 Aboo Bukk, of Murgheenan. He is stated, in the Kushf oo Zunoon, to have composed the work quoted, A. H. 651, at the College founded by IMAD ool Moolk in the suburbs of Sumurkund. It contains forty sections, on civil transactions (Moamulat) only; and being left incomplete at his death, was finished by his son, Jumal oo Deen. A copy is among he books of the Nizemut Adalut, and it is considered a work of authority.

and experience in human affairs and usages. This is quoted from the Kafee *."

HAVING thus stated the authorities for the Mohummudan law, and the preference to be observed, or discretion allowed, when they differ; it may be proper to add a short notice of the books of jurisprudence which are esteemed by the *Huneefeeyah* sect of *Soonee* lawyers, for practical exposition of the temporal law; especially such as are extant and govern judicial decisions in *India*.

Aboo Huneefah himself does not apppear to have left any work upon jurisprudence . His legal doctrines were recorded and illustrated by his disciples: particularly by IMA'M Mohummud; whose most celebrated law-tracts, entitled the Jama-i sugheer, Jamá-i kubcer, Mubsoot, Zecadat, and Siyur, have been already noticed, as collectively quoted by the title of Zahir oo' ruwayat . These works are described in the kushf oo'

^{*} A commentary on the Wase, and written by the same author IMAM ABOOL BURKAY, ABDOOLLABIN-I AHMUD, commonly called HAPIZ oo' DEEN, of Nusuf, who died A. H. 710. He also wrote the Kunz oo' Dukayik, a work of high authority, and extant in India; but eclipsed by its comment the Buhr-i-Rayik, composed in the tenth century of the Hijrah by Zyn ool Aabideen Ibn-1 Nuseem, of Egupt. Vid. Tit. Nagim of D'Herbelot, who appears however to have stated the year of his death A. H. 670, instead of 970; which is mentioned more than once in the Kushf oo' Zuncon.

[†] Mr. Hamilton mentions three treatises, on theological subjects as written by Aeoo Hunfefah: viz the Mimad, Filk-al-clm, and Moallim. Of these the Moosnud is described in the Kushf oo Zunoon, as a book of traditions. The work apparently intended as the second, but misnamed Filk-al-clm, instead of Fil kulam (on theology,) is well known in India, by the name Fikh-i-Akbur. The third is unknown. D'Herbelot, who seems to have been Mr. Hamilton's principal authority, mentions the three works, under the title of Abou-Hanifah.

[†] Mr. Hamilton (in his Preliminary Discourse, p. 36.) has inadvertently stated the Jama-i-kubeer to be a collection of traditions called also the Jama-i-saheeh, YEESOO MOHUMMUD BIN YESOO AL

Zunoon as being of the first authority for the opinions of Aboo Hunee-FAH and Aboo Yoosuf*, as well as of IMA'M MOHUMMUD. Various commentaries are also stated to have been written upon them during the early age of the Mohummudan era; and several are quoted in the Futáwa i Aálumgeeree, compiled in the reign of Au'Rungzeb . But neither the texts, or

Termazi. The apparent origin of this mistake has been pointed out in a former note. He further remarks that the author of the Jama-i-sugheer is uncertain. But independently of numerous other authorities, IMAN MOHUMMUD is expressly cited in the Hidayah as the author of both works, and of the Mubsoot. (See Vol. I. of the translation, p. 153.) Mr. Hamilton has been led into another error, by supposing the Mubsoot, quoted in the Hidayah, to have been written by Fukrool Islam Buzduvee; whereas, of the two Mubsoots cited by the author of the Hidayah, one is the composition of IMAM Mohummud, above noticed; and the other was composed by Shums ool Aimmah Surukhsee, as observed in a preceding note.

*The only work known to have been composed by Aboo Yoosur is an Adub ool Kazee; and the reputation of this has been superceded by the celebrity of Khusar's tract of the same title, already mentioned. He is said, however, to have furnished his pupil, lmam Mohummud, with notes (amalee) for a considerable part of his compositions; particularly for the Jama-i-sugheer.

† The principal commentators of the "Jama-i-sugheer" are Shums ool Aimmah Surukhsee; Aboo Bukr Ahmud Razee, commonly called Jussas, (the plasterer;) Aboo Jafur Ahmud Tahavee; Fukr ool Islam Alee Buzduvee; Aboo Nusur Ahmud ool Itabee of Bokhara; Aboo'l Lys Nusur, of Sumurkund; Aboo Nusur Ahmud, Isbeejabee; Husun bin-i-Munsoor, of Ouzjund, better known by the appellation of Kazee Khan; Taj-oo' deen Abd ool Ghufur Kurduree; Zuheer oo deen Ahmud Tumurtashee; and Kazee Musaood, of Yuzd; and Aboo Saeed Mootuhur, of the same city; whose commentary is quoted by the title of "Tuhzeeb." The seven persons first mentioned have also written comments on the "Jama-i-kubeer;" besides Kazee Aboo Zyd Abdoollah, of Duboos; Boorhan oo' deen Mahmood, author of the "Moheet-i-Boorhanee;" Boorhan oo' deen Alee, author of the "Hidayah; 'Shums ool Aimmah Mohummud, called Hulwace (the confectioner;) Ibn-i ubduk Joorjanee; and Jumal oo' deen Mahmud, of Bokhara, whose common designation is Huseeree (the mat-maker;) and whose second commentary is often quoted by the name of "Tukreer." The "Tukreer' and "Doorur' are also known comments on the work in question; the former by Abool Abbas Ahmud; the latterby Nasiro' deen Mohummud, of Damascus.

comments, are now known to be in *India*, except an imperfect copy of the commencement of Ka'zee Khan, on the *Jámá i-sugheer*, which was obtained from the library of the Nuwab of *Oudh*; and is in the possession of the *Nizamut Adalut*. Nor is there a treatise on the Mosulman law, written during the four first centuries of the *Hijrah*, at present, in the possession of any person, from whom enquiry could be made upon the subject at *Cálcutta**.

The oldest work on jurisprudence in the possession of the law officers of the Nizâmut Adâlut, and other learned Mosulman lawyers, in Calcutta, is the Mokhtusar ool Kudooree, a compendium, or general law-tract, composed by IMA'M ABOOL HOSE'N AHMUD, of Kudoor, a quarter of Bughdâd, who died A. H. 428. It is often referred to in the Hidâyah, and described in the Kushf oo' Zunoon as a book of authority in general use, and held in the highest estimation. It is said to contain twelve thousand cases; and has been illus-

^{*} It does not appear that any work on jurisprudence was published during the first century of the Hijrah: or that any was written on the doctrines of Aboo Huneefah, during the second century, except the treatises, which have been noticed, of his two disciple Aboo Yoosuf, and Imam Mohummud. In the third and fourth centuries, besides commentaries on the works of the latter, (which as fundamental authorities, are denominated Osool or Original) the following law-tracts are stated to have been composed; and are briefly described in the "Kushf oo' Zunoon." An "Adub ool Kazee" and "Nuwadir," by Mohummud bin-i-Sumaah, who died A. H. 233. Another treatise, of the former title, by Aboo Hazim Abd ool Humeed, who died in 292. Several treatises of the latter title, by Ibn-i-Roostum, Hisham, and others. Also books of both titles, and a compendium of the law, entitled "Mokhtusur-i Tahavee," by Aboo Jafur Ahmud of Taba in Egypt who died A. H. 371; and who seems to be the author erroneously cited by the name of Aboo Faka, in Mr. Hamilton's Prel. Dis. p. 38. Another compendium, entitled "Mokhtusur-i Kurkhee," by Aboo'l Hosen Abdoollah of Kurkh (a ward in the city of Bughdad) who died A. H. 340. And a "Nuwadir," with two other books, entitled "Ouzoon" and "Nuwazil", by Aboo'l Lys Nusur, of Sumurkund.

trated in numerous commentaries; among which several are quoted in the Futáwá-i Aálumgeeree; but are not now known to be extant in Hindostan *.

The other books in actual use for expounding the Mohummudan law are of two descriptions. The first consists of texts and comments, which, in a scientific method, state the elements and principles of the law; establish them by proofs and reasoning; and illustrate the application of them by select cases, real or supposed; such as the Hidáyah, Kunz oo' dukáyah, Vikáyah, Nikáyah, and Ashbah o' Nuzáyir, with their respective commentaries. The second description is commonly, but not always, distinguished by the title of Futáwá; and is, for the most part, a collection of law cases, arranged under proper heads, with a short recital of facts and circumstances, without arguments, and with authorities only for the cases quoted; being intended chiefly for

[•] The titles and authors of the principal commentaries are as follows. The "Siraj-i Wuhhaj," and "Jouhurah-i-nyyirah" (the latter abridged from the former) by Aboo Bukr bin-i-Alee, commonly called Hudadee (the blacksmith). Ahmud bin-i-Mohummud also made an abridgement of the "Siraj-i-Wuhhaj," which is quoted by the title of "Buhur-i-Zakhir." The "Mooltumus ool ikhwan" by Aboo'l Maalee, of Ghuzna. The "Kifayah," by Shums ool aimmah Ismaeel, of Byhuk. The "Biyan," by Mohummud bin-i-rusool of Toukat. The "Lobab" by Julal aboo Saeed Mootuhur, of Buzdah. The "Yunabee" by Budr oo' deen Mohummud, of Ushbeeleeah. The "Kholasut oo' dulaeel," by Hosam oo' deen Alee, of Mukkah. 'The last mentioned commentary is highly praised, for its utility, in the "Kushf oo' Zunoon," and is stated to have been further improved by the annotations of Ibn-i Subeeh oo' deen Osman, a native of Tartary. Mr. Hamilton, (in his Prel. Disc. p. 36, 37,) has erroneously mentioned the commentary of Kudooree, as quoted in the "Hidayah," instead of his Mokhtusur." He appears to have made a further mistake in stating the commentary of Kudooree to be about the "Adub ool Kazee" of Aboo Yoosuf, whereas no comment of that work is noticed in the "Kushf oo' Zunoon;" but Kudooree is specified as one of the commentators of the "Adub ool Kazee" of Khusaf, mentioned in a preceding note.

practical purposes; whereas the elementary works first mentioned are more calculated for study and instruction. The Futawa i Kázee Khan by Fukr oo' DEEN HUSUN, of Oúzjund in Furgháná, who was contemporary with the author of the Hidáyah, and whose collection is esteemed of equal authority with that celebrated work, must, in some measure, be excepted from the above remark; as it illustrates many cases by the proofs and reasoning upon which the decision of them is founded *.

The other Futáwá extant in India, besides those already mentioned in the preceding pages and notes, are the Khuzánut ool Mooftieen, Futáwá-i-Buzáziyah, Futáwá-i-Nukshbundiyah, Mun' hool ghufar, and Mokhtár ool Futáwá by unknown authors; the Foosool-i-Isturooshee, by Mohummud Bin-i Mahmood, who compiled it in the 625th year of the Hijrah †; the Futáwá-i Ibrá-heemsháhiyah, by Sha'hab oo' deen Ahmud, a native of Hindoostan, who composed it for Soolta'n Irbra-Heem Sha'h, at Jounpoor, in the 9th century of the

^{*} A complete and accurate copy of the "Futawa-i Kazee Khan," supposed to have formerly belonged to the royal library, is among the books of the Nizamut Adalut, obtained from Lukhnow. The author of the "Kushf oo' Zunoon" and the present Kazee ool Koozat, concur in extelling this work, as replete with cases of common occurrence, and consequently of particular utility for practical reference. A digest ("Moruttub") of the cases recited in it, is also mentioned in the "Kushf oo' Zunoon," as made in the seventh century of the Hijrah, by a learned Syrian, named Mohummud bini-Moostufaafunder, and entitled "Wuhhajoo' Shureeut."

[†] The court of Nizamut Adalut have a complete copy of this compilation, presented to them, with six other law books purchased at Lukhnow, by the Kazee ool Koozat, Mohummud Nujm oo' deen. It consists of thirty sections, upon "Moamulat" only: like the "Foosool ool Imadeeyah," beforementioned. The contents of both were arranged and incorporated in a collection, entitled "Jama-ool Foosoolya," by Budr oo' deen Mahmood; better known by the name of Ibni-Kazee-i-Sumawunah, who died A. H. 823. Theauthor of the "Kushf oo' Zunoon" states this work to be in great estimation with the learned, as a civil digest; but though often quoted as an authority, it is not known to be at present in India.

Hijrah*; and the Fútawá-i Aálumgeeree, compiled at Dehli, by order of the Emperor Aa'Lumgeer) in the 11th year of his reign, corresponding with A. H. 1067.

THE Hidayah is so well known, from the English version of it, made by Mr. CHARLES HAMILTON, and published in the year 1791, that it will be unnecessary to say much of it. The kázee ool koozát, in his catalogue of books already adverted to, describes it in the following terms. "The Hidayah is a commentary upon the Bidayut ool Moobtudee, and both the text and comments were composed by SAY'KH BOORHA'N OO' DEEN ALEE, son of ABOO BUKE, of Murgheenan, who lived to the age of sixty-two; and, after employing thirteen years in the composition of the latter work, departed from this world A. H. 598. The general arrangement, and division of it, are adopted from the Jama-i-Sugheer of IMA'M MOHUMMUD. It is celebrated amongst the learned for its selection of law cases, and connection of them with the proofs and arguments by which they have been determined. Wherefore in every age it has been esteemed by lawyers; many of whom have written comments and annotations upon it." It is spoken of in nearly the same language, by the author of the Kushf oo' Zunoon who adds, "it is a rule observed by the composer of this work to state first the opinions and arguments of the two disciples (ABOO

^{*} Ibraheem Shah reigned at Jounpoor (during the confusion of the Empire of Dehly, consequent to the invasion of Tymoor) for forty years, and died A. H. 844. The court of Nizamut Adalut possess an entire copy of the work referred to: but it is a mixed collection, and not deemed authoritative.

Yoosuf and IMA'M MOHUMMUD); afterwards the doctrine of the great IMA'M (ABOO HUNEEFAH); and then to expatiate on the proofs adduced by the latter, in such manner as to refute any opposite reasoning on the part of the disciples. Whenever he deviates from this rule it may be inferred that he inclines to the opinion of Aboo YoosuF and IMA'M MOHUMMUD. It is also his practice to illustrate the cases specified in the Jama-i Sugheer, and by KUDOOREE: intending the latter, whenever he uses the expression he has said in the book. In praise of the Hidayah, it has been declared, like the koran, to have superseded all previous books on the law; that all persons should remember the rules prescribed in it; and that it should be followed as a guide through life." This eulogium on the Hidayah is confirmed in a paper written by Mou'LAVEE MOHUMMUD RA'SHID, one of the Mooflees of the Supreme Court of Judicature and Courts of Sudr Deewanee and Nizamut Adalut, as well as one of the most learned Mosulmans in India; who remarks on the text, and some of the principal comments, to the following effect. "No text or commentary, now extant, can be compared with the Hidáyah as a digest of approved law cases, illustrated by the proofs and arguments which establish them. It is therefore, with its comments, fit to be the standard of legal decision in the present times. Many commentaries have been written upon it: but four only, the Niháyah, Ináyah, Kifayah and Futh ool kudeer, are forthcoming in Bengal. The Nihayah was first composed: and has superior credit as being the original from which the others have borrowed. But the author of the Inayah has merited esteem by his studious analysis; and interpretation of the letter and meaning of Hidayah. The kifayah also deserves commendation, from its concise statement of the substance of other commentaries, as well as from some additions to them. And the Futh ool kudeer is preferable to the whole,

as an ample collection of cases, (rendering it equal in this respect to a Fatawa) expressed with suitable brevity of language *."

THE Kunz oo' dukayik has been already mentioned, as composed by HA'FIZ oo DEEN, author of the Kafec and Wafee. It is a short general treatise of law,

^{*} The "Nihavah" was composed by Hosam oo'deen Hosen Ibni Alee, said to have been a pupil of Boorhan oo deen, author of the "Hidayah." The latter having, from some unknown cause, omitted the law of inheritance, it has been added by the commentator. But this part of the "Nihayah" does not appear to have obtained equal celebrity with the "Fura, eez-i-sirajeeyah" mentioned in a former note. The "Kushf oo' Zunoon" notices two commentaries of the title of "Inayah;" the first of which was commenced by Abool Abas Ahmud, a Kazee in Egypt, who died A. H. 710; and was completed in the succeeding century of the Hijrah by Kazee Saeed oo deen, of Dubur. The second, which is that referred to as extant in India, was composed by Shykh Akmul oo' deen Mohummud, who died A. H. 786; Imam oo' deen Ameer Katib Bin-i Ameer Omur, who had previously written another commentary entitled "Ghavutool biyan" after employing himself for twenty-seven years at Cairo, and other places, to render his second work more complete, finished the "Kifayah," at Damascus, in the 747th year of the Hijrali-The "Futh ool Kudeer" is stated to have been commenced by its author Kumal oo' deen - Mohummud of Seewas, commonly called Ibn-i-Homam, in the 20th year of the Hijrah; and to have occupied a consider able part of the remaining period of his life, which was terminated in 861. Other commentaries upon the "Hidayah" are mentioned in the "Kushf oo' Zunoon;" but as they are not procurable in India, it will be sufficient to notice the "Fuwaced," by Humeed oo deen Alee, of Bokhara, who died A. II. 667; and is supposed by some to have been the first commentator; but his tract, being extremely brief, has been superseded by the subsequent comments: the "Miarai oo dirayut," by Kuwam oo' deen Mohummud, also of Bokhara, who died A. H. 747; and whose commentary is quoted in the "Aalumgeeree:" and the "Odah" by Kumal oo' deen Mohummud, also quoted; though it is described as ratner an abstract, than a comment; being a methodical collection of the law cases contained in the "Hidayah," without the arguments stated in proof of them. The "Nihayah ool Kifayah," by Tajoo' Shurceyut Omur, is also mentioned in the "Kuslif oo' Zunoon" as a commentary on the "Hidayah;" but the Kazee ool Koozat, in describing an imperfect copy of it, belonging to the Nizamut Adalut, terms it a "Hasheeah," or margi- nal note book. An incomplete copy of the "Kifayah" is also among the law books of that court.

used in Mosulman colleges, as an elementary book of instruction; but superseded, as a book of reference for legal exposition, by its commentaries; of which the following are extant in India. The Tubieen ool hukavik, by BUKR oo' DEEN ABOO MOHUM MUD ASMAN of Zyl, who died A. H. 743. His comment is valued by the followers of Aboo Huneefah, as containing a complete refutation of the opposite doctrine of Shaffiee. The Buhr oo' rayik, by the learned Zy'n ool Aabideen Ibn-1 Nujeem of Egypt, left incomplete, at his death, A. H. 970; and unequally finished by his brother SIRAJ 00' DEEN OMUR, who also wrote a commentary entitled the Nuhrifayik, but of inferior merit to that of Zy'N OOL AA'BIDEEN; which is held in the utmost estimation: and is spoken of in the kushf oo' Zunoon as equalled only by the Futh ool Kudeer; IBN-1 HOMA'M's commentary on the Hidayah. The Mutlub ifayik or, as more generally called Aynee by RUDR 00', DEEN MOHUMMUD AY'NEE, of Dubur in Arabia. This commentary is also esteemed, as containing an ample collection of law cases: and though surpassed, in this respect, by the Buhr-i-rayik, it has the advantage of having been brought to a conclusion by the author; whose erudition obtained him the title of Ulamah, in common with Zy'N OOL AA'RIDEEN *.

^{*} Another commentary on the "Kunz oo dukayik," entitled "Maadun," isknown in India. But the name of the author has not been ascertained. The "Eezah" by Shykh Yahya, and "Rumz ool Hukayik" by Kazee Budr oo deen Mahmood, are also noticed, with the names of some other commentators, in the "Kushf oo' Zunoon;" but they are not celebrated, or quoted as authorities. The court of Nixamut Adalut possess an incomplete copy of the "Buhroo' rayik;" on which the Kazee ool Koozat remarks (in his catalogue) that "it comprises a compilation of cases, general and particular; with the useful result of the author's researches upon a variety of legal questions; and is received as auhentic by the followers of Aboo Hunoefah in very city of Islam.

The text of the Vikáyah, composed in the 7th century of the Hijrah by Boorha'n oo' Shureeut Mahmood, son of the first Sudr oo Shuceût like that of the Kunz oo' Dukàyik, has been superseded, for legal consultation, by its more extensive commentaries; especially by that of the second Sudr oo' Shureeût, Oby'd oollah bin-i-Musaood, who died A. H. 750; distinguished by the title of Shurh-i-Vikáyah; and combining, with the original treatise, an ample comment in illustration of it. But both are used in Mosulman Colleges, for instruction in the science of law, preparatory to the study of the Hidáyah; upon which the Vikáyah is founded; being, as its title at length imports, (Vikáyut oo' riwayah, fee Musá,eel il Hidáyah;) the Custos, guardian, or preserver, of the reports of cases in the Hidáyah. Other commentaries are mentioned in the Kushf oo' Zunoon; but they are not known to be extant in Indía; or quoted as authorities.*

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^{*}Numerous Huwashee, or books of annotations, have also been written on the text and commentaries; of which the most celebrated is the Hasheeah of Yoosup Bin-1 Jonyd, commonly called Akkee Chulfee. This work, entitled Zukbeerut ool Okba is in the possession of the court of Nizamut Adalut, who have also a correct and complete copy of the Shurh-i-Vikayah. It may be useful to add that a Persian translation of the latter has been made by a person named Abd ool Huk Sujawal, of Surhind; who in his preface, states it to have been completed A. H. 1076; during the reign of Aurungzeb. A copy of this version is in my possession. The language is not elegant; but it bears the character of accuracy; and with a careful revision, it may deserve publication. In bulk it does not much exceed a fourth of the Persian version of the Hidáyah; made by the former chief Kazee, Gholam Yuhya Khan, and his learned associates, employed for that purpose under the patronage of Mr. Hastings; a revised edition of which, under the superintendence of Mou'lavee Mohummud Rashid, is now printing, at my suggestion, by order of Government; and besides facilitating the study of the Arabic text, will tend to explain and correct the English translation; which, though on the whole deserving of praise, has been found in some parts inaccurate, and in many less intelligible than the Persian version. It may be

The Vikáyah was abridged from the Vikáyah by the second Sudr oo' Shureut, already mentioned as the principal commentator on the Vikáyah. It is also called Mokhtusur-i Vikayah, and used as a book of instruction, the rules and cases contained in it being committed to memory by the student. But its utility, for legal reference, is superseded by its commentaries: of which there are extant, comp osed by Aboo'l Muka'rim bin-i Abdoollah, A. H. 907; by Abdool Alee, Bin-i-Mohummud Birjindee, in the year 937; and by Shums oo' deen Mohummud, of Khoristan, in 941. The whole of these comments are held in esteem; but the latter, entitled Jamá oo' rumooz, is the most copious.*

THE Ashbah 6 Nuzayir is an elementary treatise, composed in the tenth century of the Hijrah, by Zyn ool An'bideen, already mentioned as the author of the Buhr-i-áyik. It is stated in the Kushf oo Zunoon to consist of seven sections, (denominated fun); the two first of which relate to the general principles and rules of law; and the kázee ool koozat, in describing a copy of it, which belongs to the Nizámut Adálut, observes, that "although a short tract, it contains legal principia, from which numerous cases may be deduced; wherefore to able lawyers it is of the utmost advantage." Thirteen commentaries upon it are noticed in the Kushf oo' Zunoon, but none of them are known to be in India. *\forall \tag{\tau}

proper to add in this place, that in noticing, for obvious reasons, what has appeared upon inquiry to be erroneous or deficient in the late Mr. Hamilton's translation of the "Hidayah," no intention whatever is entertained of impeaching the personal merits or reputation of that gentleman; who laboured under a material disadvantage in not having completed his arduous and laudable undertaking in India.

^{*} Complete copies of the three commentaries are among the books procured from Lukhnow, for the court of Nizámut Adálut.

Mou'layee Mohumud Rashid possesses two commentaries on the Ashba o Nuza', yir, one of

Besides the texts and commentaries above described, as in actual use for legal expositions, the Mujmá oo buhryn, a text book composed by Mozuffer oo' Deen Ahmud, of Bughdád, A. H. 690, is also in the possession of a learned Mosulman in Calcutta, * together with one of its commentaries, written by Abd oo' Luteef Bin-i-Abd ool Azeez; but as no other copy of either the text or comment is known to be forthcoming; they cannot be in general use. †

which, called the "Ghumzool Oyoon', was written by Syyid ahmud bin-i-Mhummud Humavee. The author of the other is unknown.

* Moúlavee Kureem oo deen, by whom (in concert with Moúlavee Mohummud Ra'shid) I have been materially assisted in preparing the short account given of books on the Mohummudan law; and who has made for me a complete Persian translation from the Arabic original of the "Kushf oo Zunoon." He received the "Majmâ-ool buhry'n," and its commentary, from Shura'iut Mohummud Khan, Meer Moonshee to the Nuwab Mozaffur Jung; who supported a Mudrusah at Moorshidabad, in which Kureem oo deen was Modurrir or Lecturer.

† In addition to the books on jurisprudence, which have been noticed; the following are described in the "Kushf oo Zunoon;" but none of them are known to be at present in Hindostan. The "Ajnas" and "Akkam," by Aboôl Abas Ahmud Natiffe, who died A. H. 440: the "Tujnees o' Muzeed" by the author of the "Hidayah;" the "Ha'vee ool Huseeree" by Mohummud-bin-i-lbraheem, of Huseer, who died A. H. 505. The "Futawa-i-koobra," by Shaheed Hisam oo deen Omur, who suffered martyrdom in the 536th year of the Hijrah. The 66 Kholasut ool futawa," by Tahir bin-i-Ahmud, of Bokhara, who died A. H. 542. The Mooltukut," by Nasir oo' deen, Abool Kasim, of Sumurkund; finished A. H. 549. The "Havee ool Koodsee," by Kazee Jumal oo deen Ahmud of Ghuzna, who lived in the latter part of the 6th century of the Hijrah. A "Tulkhees" (abridgment) of the Jama-i-kubeer," by Kumal oo' deen Mohummud, of Khilat, who died A. H. 652. The "Mokhtar," and its commentary, the "Ikhtiyar," by Muid oo' deen Abdoollah of Moosul, supposed to have flourished in the 7th century of the Hijrah. The "Ghoorur ool Ahkam," and its comment, the "Doorur ool hookham," by Mohummud bin-i Furamooiz, commonly called Moolla Khoosro, who died A. H. \$87; and the "Mooltuca ool Abhoor," by Ibraheem bin-i Mohummud Chulpee (a Syrian) finished A. H. 923. Of these works the three last mentioned only are text books. The ren ainOF the books of Futáwá which have been mentioned, none appear to require further notice, except the Futáwás-i Aálumgeeree. Mr. Hamilton, by an extraordinary mistake, has stated this work to have been "composed in the Persian language*, by the authority and under the inspection of the Emperor Au'rungze's;" whereas it is well known to have been written in Arabic, the usual language of Mohummudan law and science; and to have been translated into Persian, by order of the Emperor's daughter, the Princess Zeb oo' Nisa'. Several copies of the Arabic original are in Calcutta; and some imperfect copies of the Persian version; or rather of parts of it . In the

der (excepting the abridgments of Imam Mohummud's great "Jama,") are collections of cases, of the nature of "Futawa." A further collection, entitled "Khuzanut ool futawa," by Ahmud bin-i-Mohummud, is among the books of the Nizamut Adalut, and supposed by the "Kazee ool Koozat" to have been compiled to wards the end of the 8th century of the Hijrah. Also a Persian compilation, named "Futawa-i-Kurakhanee," the cases included in which were collected by Moolla Sudr oo' deen bin-i Yakood, and arranged, some years after his death, by Kura Khan, in the reign of Sooltan ula oo'deen, The Kazee ool Koozat has likewise presented to the Nizamut Adalut a small Persian book, entitled Mokhtar ool Ikhtiyar, written A. H. 271, by Ikhtiyar son of Ghy as oo' deen Husun; containing, besides the duties of a kazee and mostee, legal forms of various descriptions for practical use.

^{*} Preliminary Discourse, p. 44.

[†] Mr. H. Colebrooke possesses a folio volume, containing about half of the entire translation, from the commencement to the book upon evidence. I have also a volume which contains from the book on marriage, to that upon endowments, or religious and charitable appropriations. And, at my suggestion, the Governor General in Council has been pleased to instruct the Resident at Dehly to endeavour to procure two or more complete copies of the Persian version made by order of Zeboo Nisa, with a view to prepare a collated transcript, which may be hereafter printed and published. I have likewise a correct Persian translation of the book on "Jinayat," or offences against the person, made for me, a few years since, by Moulayee Saeed oo deen, (now law officer

catalogue of books appertaining to the Nizamut Adalut (among which is an incomplete copy of the Arabic Futawa-i Aalumgeeree) the kazee ool koozat describes this work in the following terms:-"It was commenced A. H. 1067, corresponding with the 11th year of AA'LUMGEER's reign. Credible persons have related, that when MEERZA' KA'ZIM, author of the Aalumgeernamah, had finished, and presented to his Majesty, the history of the first ten years of the reign, it occurred to the King that there were many books of history in the world, and that from the inclination which mankind have to read such books, they are composed without orders from Kings and Nobles: that the foundation of good government is justice; and that this depends upon a knowledge of the ordinances of the law; that although the learned of every age had compiled expositions of the law, yet in some instances the examples were so dispersed that they could not readily be found, when required; and in others, the cases of less weight were not distinguished from those adjudged to be authoritative; whilst some decisions also had been unnecessarily repeated; and others, though requisite, had been omitted: wherefore it was proper that, in the present reign, a new Futawa should be compiled, to be arranged in the most approved manner; and to contain the most authoritative decisions of law, including every useful case, which had been adjudged, without repetition or omission. As soon as the King had formed this design, he ordered MEERZA' KAZIM to discontinue writing the Aalumgeernamah; and not to take in future the sum allotted for it from the royal treasury. He then assembled a number of eminent lawyers from the

of the Burely court of circuit) under the superintendence of his father, the Kazee ool Koozat, who has added notes of explanation where they appeared requisite. This version will probably be printed and published, as it well deserves to be.

Punjau, the environs of Shahjahan abad, Akbur abad, Ilah-abad, and the Dukhun; and employed them in compiling the work, which was afterwards called the Futawa-i Aalumgeeree. In truth no other Futawa is equal to it in excellence. It has become celebrated in every city, as well in Arabia as in other countries; and is termed at Mecca the Futawa-i Hind, or Indian expositions. It is esteemed by the learned of every country, and is received as an authority for law decisions in this empire." It is added, that lacks of rupees are said to have been disbursed in stipends to the learned compilers, the purchase of books, and other expences attending the execution of the work.

Futawa-i Aalumgeeree being four times the size of the Hidayah, and containing little more than a recital of law cases, without the arguments and proofs, which are diffusively stated in the Hidayah it must possess an advantage over that work, for practical use, in its greater number of cases and examples. On the other hand, the full illustration of the law, its principles, and-the different doctrines promulgated by some of the most eminent expounders of it, which distinguish the Hidayah, as an original composition by a celebrated jurist, who, from his superior knowledge and qualifications, was esteemed a Mojtahid, is also above that of the Futawa-i-Aalungeeree; which, however valuable, as the latest and most comprehensive collection of cases, is held in less comparative estimation, from its being a modern compilation, made by several persons, of different judgment, and unequal ability. Without contrasting their respective merits, however, the one is universally admitted to be a most useful supplement to the other; and a conversance in both, or an easy means of reference to them in cases of judicial occurrence, must be of essential use towards the due administration of the Mohummudan

law, oas far as that law is declared to be the established rule and standard of decision *.

* Mr. Hamilton's translations of the "Hidayah" renders it unnecessary to state the general contents of that work. The "Futawa-i-Aalumgeeree," consists of 61 books (kitab) in the fol-lowing order: -1, Taharut, purification. 2, Sulat, prayer. 3, Zukat, alms. 4, Somfasting. 5, Huji, pilgrimage. 6, Nikah, marriage. 7, Ruzáa, fosterage. 8, Tulak, divorce 9. Utak, manumission. 10, Ayman, vows. 11, Hoodood, fixed penalties. 12, Surikah, arceny. 13, Seyur, institutes or regulations concerning infidels, apostates, apostates, and rebeis. 14, Lukeet, foundlings. 15, Looktah, troves. 16, Ibak, absconding of slayes. 17, Mufkood, missing persons. 18, Shirkut, partnership. 19, Waukf, endowment; or religious and charitable appropriation. 20, Bya, sale. 21, Surf, exchange of coin or bullion. 22, Kufalut, bail. 23, Huwalut, transfer of debts. 24, Adub ool Kazee, the duty a Kazee. 25, Shahadut, evidence. 26, Roojooa un Shahadut, retraction of evidence. 27, Vukalut, agency. 28, Dawaclaim. 29, Ikrar, acknowlegdment. 30, Soolh, composition. 31, Mozarubut, copartnership in stock and labour. 32. Wudee, ut, deposit. 33, Adeeyut, lending without return. 34, Hibah, gift. 35, Ijarah, hire and farm. 36, Mokatub, covenanted slave. 37, Wnla, connection of emancipator and freedman; or of patron and client. 38, Ikrah, compulsion. 39, Hujr, inhibition and disqualification. 40, Mazoon, licensed slave, and ward. 41, Ghusb, usurpation. 42, Shoofah, right of vicinity. 43, Kismut, partition. 44. Mozaraut, compact of cultivation 45, Moa, amulut or Mosakat, compact of gardening. 46, Zubayith, animals slain by Zubh, or incision of the throat. 47, Oazheeyah, sacrifice. 48, Kurahiyut, abomination, disapprobation, or censure. 49, Tuhurre, presumptive preference. 50, Ihya ool muwat, cultivation of waste land. 51, Shirb, right to water. 52, Ushrihab, intoxicating liquors. 53, Syd, game. 54, Rihn, pledge. 55, Jinayat, offences against the person. 56, Wusaya, testamentary bequests. 57. Mukazir o Sijillat, judicial proceedings and decrees. 58, Shooroot, legal forms. 59, Hivul. legal devices. 60, Khoonsa, hermaprodite. 61, Fura, eez, rules of inheritance.

Of the sixty-one books enumerated, fifty-five correspond with similar titles in the Hidayah, Two other books in the latter work, entitled "Diyut," (the fine of blood), and "Mu,aakil" (exaction of the fine of blood), are included in the "F. Aalumgeeree," as chapters of the book of Jinayat. The book of "Shirb," in the "F. Aalumgeeree," forms a section of the book entitled "Ihyaool finuwat" in the "Hidayah." The remaining five books of the "Futawa-i.

Aalumgeeree," viz. those entitled "Tuhurree," "Mahazir o Sijillat," "Shooroot," "Hiyul," and "Fura,eez," are not included in the "Hidayah."

The general division and arrangement of both the "Hidayah," and "Aalumgeeree," appear to have been adopted from the "Jama-i-Sugheer," of Imam Mohummud. The same order is also observed in most other works written by the followers of Aboo Huneefah; and the author of the "Buhr-oo-rayik," has endeavoured to shew to that it is founded on a principle of successive connection. But his reasoning does not appear satisfactory. It may be useful to add, however, that the Mosulman law, in the most extensive sense of the term (Shura, or Deen-i-islam) comprehends the ordinances of religion, and the duties of men towards his Creator, as well as his rights and obligations towards his fellow creatures. It is therefore stated in the "Bukr-i-rayik," to comprise five principal heads; namely, 1, Iatikadat, articles of faith. 2, Ibadat, acts of worship and piety. 3, Moâamulat, affairs of life, or civil transactions. 4, Muzajir, punishments for the prevention of crimes. 5, Adah, manner, or rules of behaviour. In books of jurisprudence (fik-h) the first and last heads are omitted. The other three are included; and the head of "Ibadat," always precedes the "Moâamulat," and "Muzajir," as of superior importance.

VIII.

An Account of Astronomical Observations taken at the Honourable Company's Observatory, near Fort St. George in the East Indies, in the Years 1806 and 1807. To which are added some Remarks on the Declination of certain Stars and of the Sun, when near the Zenith of that Place.

BY CAPTAIN JOHN WARREN,

OF H. M. 33d REGIMENT OF FOOT.

- 1. Major Lambton having sent his zenith sector to the Madras Observatory in September 1806, I began early in the ensuing month the observations which form the subject of the present paper. As an account of this instrument has already been given to the public, in a paper written by that gentleman, and published in the 8th volume of the Asiatic Researches, I shall only observe here that it came to me in high order, and that I observed constantly with it from October 1806 to June 1807, without perceiving any material change in its powers or mode of performing.
- 2. In undertaking a series of observations of zenith distances, I had in view to establish permanently the latitude of the *Madras* Observatory, on which there seemed still to be a doubt of several seconds, and also to verify the declination of several stars near the zenith, when used for obtaining the latitudes of places, disagreed in their results.
- 3. This laborious and dry enquiry, I am aware can afford but little entertainment to the generality of readers. The present paper, therefore, can only Vol. X.

claim the advantage of recording good observations, taken in great numbers, and computed with scrupulous attention; and perhaps of affording some data to astronomers in other climates, for further investigation into the effects of refraction.

- 4. Although the method for correcting zenith distances at any given time, for abbreviation, nutation, and solar equation, is well known to astronomers, yet I do not omit giving a general statement of the manner in which I have applied these various corrections to my observations. Such as belong to Regulus are given in Table I, and may serve as an example for the rest. For the detail of each respective rule I must refer the reader to books of astronomy, for I have nothing new to offer on the principles upon which they are grounded.
- 5. I HAVE however to observe, that refractions being one of the subjects under consideration, I have computed it separately for every star, according to Dr. Bradley's theory, in which the state of the atmosphere at the time of observation is considered, and without any reference to the tables. The rule may be found demonstrated in Vince's Complete System of Astronomy, Chap. VIII. page 82, and following. I have reduced it, for a more convenient arrangement, into the following form:

Corrected Refraction
$$R = \frac{a}{h + 350^{\circ}}$$

The following example will shew the notation.

Example.

The mean observed zenith distance of Regulus by observation is 0° 9' $14'.326 \pm Z$.



TABLE I.

Shewing the Process of deducing the Latitude from the observed Zenith Distances of Regulus.

	Corrected Zenith Distance.	0° 9′ 16″.293 0° 9′ 16″.293 0° 9′ 17. 041 0° 9′ 17. 041 0° 9′ 9° 5.49 0° 9′ 9° 10° 17 0° 9′ 10° 168 0° 9′ 17° 951 0° 9′ 17° 951 0° 9′ 18° 281 0° 9′ 18° 283 0° 9′ 18° 283
	Observed Zenith Distance.	0° 9' 56".5 0 9 51.8 0 9 51.5 0 9 51.5 0 9 51.5 0 10 2.0 0 9 52.5 0 10 3.0 0 10 4.0 0 9 56.0 0 9 56.0 0 9 56.0 0 9 56.0
	lace of Limb.	周 3 3 4 3 5 4 3 5 4 3 5 4 3 5 4 3 5 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
	Equation for n. Z. Dist.	40".207 40 .588 40 .959 41 .140 42 .807 42 .983 44 .122 44 .049 44 .389 44 .727 44 .902 45 .164 45 .691 46 .777
	Total Eq. Declin.	40".207 40 .588 40 .959 41 .140 42 .807 42 .807 44 .019 44 .019 44 .019 44 .019 44 .019 44 .019 44 .019 46 .058 47 .727 46 .695 46 .695
	Solar Equation	0. "015 0 .049 0 .084 0 .084 0 .101 0 .154 0 .289 0 .289 0 .424 0 .424 0 .427 0
	Abberrat	00966 1 .213 1 .213 1 .562 2 .613 2 .721 2 .832 3 .377 3 .583 3 .788 3 .583 5 .832 5 .832 6 .832 6 .832 6 .832 6 .832 6 .832 6 .832 6 .832 6 .832 7 .832 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	Nutati.	6" . 494 6 . 509 6 . 509 6 . 510 6 . 513 6 . 543 6 . 563 6 . 5
	Preces-	32'.73' 32 .526 32 .920 33 .920 33 .931 33 .438 33 .438 33 .731 33 .731 33 .956 34 .100 34 .474 34 .474
	Apparent Time of Transit.	17 49 0 .2 17 49 0 .2 17 52 25 .6 17 28 7 .2 17 15 9 .5 16 48 56 .9 16 44 33 .5 16 18 5 .8 16 18 39 .6 16 9 14 .3 15 55 56 .8 15 55 56 .8 15 53 48 .9 15 33 48 .9 15 33 48 .9 15 33 48 .9
	Star's Declin.	12° 54′ 26″.198 12° 54′ 26″.198 12° 54′ 26″.104 12° 54′ 26″.104 12° 54′ 26″.903 12° 54′ 25″.822 12° 54′ 25″.822 12° 54′ 25″.822 12° 54′ 25″.93 12° 54′ 25″.162 12° 54′ 25″.162 12° 54′ 25″.163 12° 54′ 24″.739 12° 54′ 24″.409 12° 54′ 24″.409 12° 54′ 24″.409
	Place of	85 19° 46′ 8 19 40 8 19 40 8 19 34 8 19 34 8 19 31 8 19 31 8 19 31 8 18 19 31 8 18 32 8 18 32 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 23 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 18 8 23 8 8 17 8 8 8 8
	O's Longitude.	85 4° 7' 35" 8 8 10 8 8 9 10 51 8 12 13 5 8 18 18 8 8 19 19 1 8 20 19 55 8 20 19 55 8 20 24 34 8 26 27 28 20 9 29 28 20 9 1 30 13 9 5 24 5 9 1 30 13 9 5 24 5 9 1 30 13 9 1 48 04
	Star's A. R.	4 4 4 4 4 4 4 4 2 2 9 3 1 2 2 9 3 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
i i	Months and Days.	Nov. 26. 28. 30. Dec. 1. 10. 11. 12. 17. 18. 19. 21. 27. 27. 27. 27.

RESULTS.

Mean.	Mean, 0° 9′ 14″ .326 * Refraction,+ 0 .131 Micrometer, + 0 .051 Tube,	Declination, 12 54 58 .930 Latitude, 13 4 13 .434		* For Refraction see paragraph 5, in paper.
Right Arc.	0 9 10 212 0 9 10 360 0 9 9 549 0 9 8 693 0 9 10 668	0 9 8.281 0 9 9.273 0 9 10.309 0 9 9.305	0 9 9 .629 0 9 19 .023	0 9 14.32
1806-7	28. Dec. 1. 4. 10.	18. 21. 27. Jan. 2.		
Left Arc.	0° 9′ 16″.293 0° 9′ 17. 041 0° 9′ 19. 017 0° 9′ 17. 951 0° 9′ 10″. 111	0 9 18 .098 0 9 18 .836 0 9 18 .223 0 9 16 .652	Mean, 0 9 19 .023	
1806-7	Nov. 26. 30. Dec. 11. 17.	22. 23. Jan. 3.	Mean,	

The refraction due to 45° altitude, as established by experiments, and very near the level of the sea is $50'' \equiv R'.*$

The mean altitude of barometer at the time of observing was 30.035 inches $= \alpha$.

The general medium height of Mercury is $29.6 \pm A$.

The mean altitude of thermometer at the time of observation was $71^{\circ} \pm h$.

Rule.

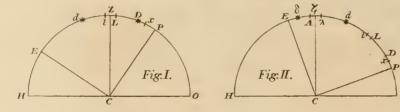
Tangt.
$$Z = 0^{\circ} 9' 14''.326 \log$$
. 7.4293310 1.6989700 $9.1283010 \text{ N.N.}0.134$ 3 $3r = 0.402$ $3r = 0^{\circ} 9' 13''.924 \log 7.4290229$ $R' = 50' \log 1.6989700$ $R' = 50' \log 1.6989700$ $A = 29.6 \log 1.4775553$ $A = 29.6 \log 1.4712917$ $A = 29.6 \log 1.4712917$

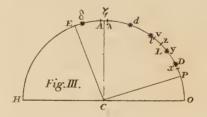
^{*} The quantity R', which represents the refraction due to 45° latitude (where Rad. = 1) is given in Bradley's Tables = 57". But for obvious reasons I have preferred Le Gentil's quantity, as his experiments at *Pondicherry* appears to me unexceptionable.

which quantity O".131 is entered on the IX. column of Table II. and so of the rest.

- 6. I was at first doubtful respecting the best mode of obtaining a very accurate mean latitude for the Observatory, and hesitated between making a selection of a certain set of stars whose declination was determined at *Greenwich* after the same method, and with the same instruments; or taking the whole mass of my observations without adverting to the catalogues either *English* French, or German, from which I had taken the declinations.
- 7. Had the whole of the stars given in Table III. been computed when I began writing this paper, I might have been induced to think the separate catalogue in Table II. unnecessary, since the two means only differ by 0".361. However, I was, at the time, determined by an opinion that the results of a few very accurate operations were always preferable to the mean of a great number of indifferent ones, and chose therefore twelve principal stars (six on each side of the zenith) the declinations of which are given in Dr. Maskelyne's catalogue for January 1802. With these I constructed Table II. to which I particularly wish to call the attention of the reader, as every thing that I shall say hereafter is grounded on the mean latitude which is derived from it.
- 8. In this catalogue, the maximum of deviation in the respective latitudes is only 4".551, and their gradual decrease as the stars become more southerly indicates that this difference is not solely to be attributed to inaccuracy in the observation; for it is to be observed that the regularity of this decrement (which is scarcely interrupted) cannot altogether be ascribed to chance;









Land Janes

Shewing the Latitude for the Madras Observatory such as derived from 12 Principal Stars.

XIII.	Mean Lati-								13° 4′ 13″.654					,	
XIII.	Mean by Northern and Southern Stars.							13° 4′ 14″.721				٠		13 4 12 .587	
XI.	Latitudes.		130 1/18" 736	13.829	720. 31	14.933	14.836	13.915		13 4 13 434	13 008	11.051	12 .435	11 .812	
X.	Corrected Ze-		069",82",2		2 35 33 .485	1 33 12 .158	1 5 23 .214	1 1 47.991		0 9 14 504			p==4	7 21 11 .802	
IX.	Refraction.		6".051	2.557	2 .197	1 .288	0.902	0.856		0.131	0 :293	4 .855	5 .043	6 .280	
VIII.	Түсктошегек.		750	22	74	81	83	81	i	1/	S. S.	7.7	80	73	
VII.	lo thein height of Barometer during Baservation.	7	29.975	29.983	30.019	29.942	29.966	29.966	2 0	30.033	29.333	30.035	29.993	30.035	
VI.	Observed Zen. distances corrected for Ab- ber. Nut. and Solar Equa- tion.		669",63 /2 °2	3 2 7 .548	2 35 31 .288	1 33 10 .870	1 5 22 .312	1 1 47 .135	(020. 41 6 0	4 42 15 .821	42 29	6 1 8 .002	7 21 5 .522	
, V	Mean Declina- tion from Greenw. Cat. for 1805.		20° 12′ 14″.426	16 6 23 .830	15 39 48 .544	14 37 27 .091	14 9 38 .050	14 6 1 .906	10 54 50 090			7 21 36 .670	7 2 59 .390	5 43 0 .010	
IV.	Interval during uhen observed.		Feb. 6. Mar. 20.	Oct. 30. Dec. 9.	Jan. 2. Feb. 24.	Mar. 27. Apr. 24.	Oct. 25. Nov. 14.	Oct. 25. Nov. 14.	Nov. 98 Ian 19	Mar. 15.	Apr. 28.	Nov. 7. Jan.	Mar. 9. Apr. 9.	Nov. 8. Jan. 23.	
111.	.edO to .muN		20	16	20	91	16	13	28	10	16	20	12	10	
E.	.esbutingaM		m	-	63	es .	cz	63		63	63		2.3	1.2	1
I.	Names and Characters of Stars.		Arcturus,	Aldebaran,	g Leonis,	z Herculis,	a Pegasi,	7 Pegasi,	Regulus,	2 Ophiuchi,	Attair,	α Orionis,	z Serpentis,	Procyon,	The state of the same of the s

1															15		25								£r.					1
		4	Tr.	8	9	8	w	8	×	**	m	×	F	a	,	9	e	m	0	0,	×	-	h	in.	300	8	2	8		Names of Stars.
	Procyon	Orionis	Aquilia	Serpentis	Leonis	Orionis	Simania	Aquilæ	Leoms	Orionis	Pegasi.	Ceh	Orionis	Cancin	Unic	Leon	14d.	Delp	Leon	Serp	Cano	Leon	Herculis	Virginis	Leon	Ca	2 Cancri.	Ophinchi	Regulus	s of
	you	SILI	· 8	entis	SII	SIG	SILII	. 8	SIL	SIE	. • [8]		SIII	. <u>=</u>	Unicorn .	eoms	Ophinchi	Delphini .	eoms	Serpentis	Cancri	Leonis	ulis	nis	eonis	Cancri · ·	neri	nichi	ilus	Stars
			:		•	:	:	:		•	:	:	:	•	•	•		-:	:		•	•	:	:	•	:	:		-	1
	1.2	2	- 	2.3	4.5		-		4	4	22	4	49	3.4	4	وث	2		4	0	4	4	4	ප	-de	4	4	12	_	Mag.
	+	+	12	12	12	20	4	16	5	12	14	10	co	12	6	co	18	6.	00	So	6	6	00	18	Ą	6	16	10	18	No.of Obs.
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	25	18	-		2]	1.	2.					28	_		sh 20.									=	5.			22.	12	Period daring which obs.
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	43	9 43		2 59	5 48	21 37	37 26	2! 53	23 20	53 17	59 18	17	38 10	6 29	3 57	18 28	29 54	39	46 25	12	26 45	_	55	0 40	9 28	21 48	36 18		54 5	Dec
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Mea	52	.193	59	.002	.794	:526	.945	.821	.397	-501	.456	:187	.693	977	.875	388	.886	.228	.940	.203	.593	806	.678	.500	.352	.166	.057	302	.326	
n of	6.			5	5.	4	4	3	4	3	دد	, 3	2	2	2	2	2	_		_	_		0	0.	0	0.	0.	0.	0,	Keiraction.
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Mean of Stars South of Zen				_					_		-	-		_					-			_	-				_			
uth o	7 2	6 54	6 5	6	5 58	5 42	5 26	4 12	4 40	4 30	4	3 47	3 26	3 17	3	2 4	23	2 24	2 17	1 52	1 37	1 27	-		0 54	0 42	0 27	0 2	ó	Cor
of Z	=	1 28		1 13	8 20	2 34		2 19	0 52	0 48	4 52				0 4	5,40	1 2		7 4:				9 9	3 32	4.47	2 21	7 55	1 22	9′ 1.1	Cor. Z. dist.
enith.	.802	3.158	.38	3.045	88	1.381	.412	.695	2.415	3.29	2.848	2.396	3.56	0.77	13.385	0.053	21.033	53.212	5.901	10.764	.92	59.009).636	2.38	7.14	.745	45	2.655	.504	list.
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11.113	1.8		15.383		8.883	0.11	16.4		12.4	5.2	10.8	8.3	14.563	59.7	10.3	8.0	15.0	58.2	6.01	14.7	9.9	11.0	14.6		5.1	9.7	13.452	3.565	3".434	des.
13	812	58	83	.435	83	.051	.412	.225	.415	.292	848	.396	63	77	85	.053	.033	.212	.901	.764	26	.009	.636	.387	.143	.745	52	65	42	
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	4.3	9 4			5			21 :				17			4			39					55	0		21	36		54'	Cor. Declin.
	1.6	45.2	36.0	0:0	52 .	39.0	23 (53.7	21.0	25.1	20	11.	9.8	42.0	0.0	33 .	52 .		: 75		48-	4.			26 .	51.	17 .	50 .7	8".6	ecli
	32	.276	151	89	.551	.053	.022	.739	919	.142	.586)38	.871	.657)49	.381	.401	.222	553	.670	.508	.425	.798	.047	.291	.689	982	.779	.930	0.
	+	+	1	+	+	+	1	1	1	+	+	+			+	+	1	+	+	1	+	+	1	+	1	+	1	1	1	ם
	1.6	2.2	1.5	0.9	4.5	2.0	2.5	0.7	1.0	œ <u>.</u>	2 .	5.0	0.	13.(3.0	5:5	-	15	25	1 ::	3	0	punk	1.0	, ma	3.(0.0	0,131	0,,0	Difference.
	622	.276)49	.999	.551	.053	.978	.739	.019	.142	.586	.038	.129	.657	049	.381	599	.222	.533	.330	.508	.425	.202	.047	.709	.689	810.0	131	.000	nce.

TABLE III.

Shewing the Latitudes for the Madras Observatory such as deduced from 52 Stars near the Zenith by 500 Observations.

XI.		-4".657 -1.875	-2.296	002.0-	-9.093 +0.363	2.112	-3.479	-1.544 + $+2.429$	-7.298 +0.339	+1.639	+0.285	-1.402	-0.475	+4.360	100	-1.291	
X.	Corrected Declina- tions for Jan. 1805.	20° 50′ 38″.343 20 49 24 .125	12	51	19 22 48 .907 18 58 51 .313	18 51 44.888	15 42	16 29 42 429	1.8 27	39 46	15 8 49.285 14 37 25.592	98 6	16 6 1.425	54	35	13 11 46.709	
IX.	Latitudes.	13° 4′ 18″.091 15.309	15.736	14.140	22.027	15.546.	16.913	14.978	20.812	13.077	13.149	14.836	13.915	9.070	18.526	14.325	13 4 15.482
VIII.	Corrected Zenith Distances.	7° 46′ 24″.909 7 45 10.691	50	47	5 54 37 .879	4 30 14 884	11 29	3 25 28 .095	14 14	35 2	2 4 35.851		1 47	0 50 44.926	30 49	0 7 33.275	Mean of Star's N. of Zeu.
VII.	Refraction.	6".536	6.051	5.679	5 .010	4.913	3.506	3.216 2.994	2.705	2.197	1.748	0.902	1.857	0.713	0.423	0.104	Mean of
VI.	Corrected Zenith distances minus Refrac.	7 45 4.151	7 7 52.639 6 50 42.566	42	5 54 32 .869	5 47 26 .541 4 30 11 .164	11 25	3 28 59 300		35 31	2 4 34.103	22	1 47	0 50 44.213	0 30 49.051	0 7 33.171	13 4 13.293
, V	Mean Declinations January 1805.	20° 50′ 43″ 20 49 26		51	58	51	15	10 33 18 16 29 40	16 18 35 16 6 23	39	15 8 49 14 37 27 00	9 38	14 6 1.906	54	35	13 11 48	Mean Latitude from the whole,
IV.	Period during which observed.		6. March	28. Nov.	28. Nov.	Nov. 30. April 10. April 28. May 5.	h 5. and	Dec. 2. Feb. 12.	1 12. April 30. Dec.	2. Feb.	Nov. April	25. Nov.	Oct., 25. Nov. 14.	. 14. Feb.	28. May	Feb. 19. and 26.	Mean Latitude
II.	No. of Obs.	16	20	10	12	18	9	4 S	8 20	50	12	97	02 0	0.0	च्यू	4	2
=	.eshnitagald	00	- co	00 0	2 44	4 4	3.4	3, 60	es =	C1	ည လ	.1	C	15	3.4	4.5	
1.	Names and charac ters of Stars,	ζ Geninorum γ Léonis ····	Arcturus	A Arietis		5 & Sagittæ	# Bootis	9 Leonis	γ Serpentis Aldebaran	2 Leonis	2 Tauri a Hercules	z Pegasi	y Pegasi	Doriouis	S Aquilæ	o @ Orioms	

Zenith Distances and Latitudes by the Sun, April and May, 1807. TABLE V:

																				 _		
	13.	12.	9.	00	5.	May. 3.	30.	27.	26.		25.	****	23.	21.	20.	19.	18.	16.	April 15.		observed.	Days on which
	4.8	4 50 35 .340	2 cs	46 40	55 54	39	1 25 53 . 806	29 2	.39	O North.			0 49 45 . 564	1 30 26 . 776		11 52.		3 15 19 . 065	3°36′49″.819		centre.	Zenith dist. of O's
		8 . 560 3 . 560					5.092 4.380		4 3 . 389		4 2 . 339		3 59 . 564		_	රා	7		13° 4′ 4″.949		Latitudes.	Corresponding
Diff. 2 . 242	13 4 4 . 449				-				-		13° 4′ 2″. 207										tances.	Mean of Lat. by Northern and
	٠									13° 4′ 3″ .328											0.000	Mean Lat

TABLE IV.

Sherving the Latitudes given by Stars, as observed North or South of the Zenith.

Mean Latitudes.	16° 48′ 39″	14 6 19.165	13 19 44. 69	*		13 4 13.654		12 59 55. 49	11 44 47 . 78
Excess by North of Zenith.	6". 8	2 . 393	8 . 648	2 . 134	4.369	2 . 242	5 · 09 1 · 34 1 · 58 6 · 17	2 · 04	9 . 50
Latitudes by Stars South of the Zenith.	16°48′35″, 7 }	14 6 17 919 }	13 19 40 .370	13 4 12.587	13 4 11.113	13 4 2.207	13 4 4 4 6 5 3 6 13 9 6	12 59 59. 0 }	11 44 41 . 45 }
Latitudes by Stars North of the Zenith.	16° 48′ 42″. 5	14 6 20.312	13 19 49.018	15 4 14.721	13 4, 15,482	13 4 4.449	13 4 11 . 62 13 4 6 . 10 13 4 6 . 45 13 4 12 . 47	13 0 1.04 12 59 54.89	11 44 50. 55
Names and Number of Stars observed by.	By 15 Stars North of Zenith, with Sextant	ε Bootis, δ Leonis, β Leonis	Aldebaran	TABLE II. Arcturns, Aldebaran, β Leonis, α Herculis, α Pegasi, ··· γ Pegasi, Regulus, α Ophiuchi, Attair, α Orionis, α Serpentis, Procyon,	By 23 Stars N. of Zenith, with the Zenith Sector 29 Stars S. of Zenith	By 11 Observations of © N. of Zenith	Obscreations by Mr. Goldbaran, Markab, & Delphini Regulus, & Arietis, Aldebaran, Markab, & Delphini Regulus, & Oplinedi, Attair, & Orionis, & Serpentis, Z. S. By 25 Stars, very near the Zenith N	Arcturus, a Herculis, Markab, y Pegasi	Aldebaran, Regulus
.Name of Places where observed.	Coringa, in the Northern Circars.	Paughur, in the Mysore.	Paudree, in the Carnatic.	٠		Observatory, near Fort St. George.		Dodagoonta, near Bangalore, in the Mysore.	Trivandaporam, in the Carnatic,

and it was this consideration which led me to examine whether I could not discover some law by which it was governed.

- 9. For this purpose I gathered all the observations which I could collect, and from as many different places in the *Peninsula* as I could, provided they were obtained in sufficient numbers at each place. These being arranged in the order of the declinations, and the mean results of northern and southern zenith distances being taken separately, I noticed invariably (though in unequal degrees) a small *excess* in the northern, and *defect* in the southern sets.
- 10. An abstract of these deviations is given in Table IV. and the reader will do well to refer to it in order to judge of the consistency of the preceding remark, and of the solidity of what I have further to say on the subject.
- 11. This exposition being sufficient to shew the tendency of observations taken north of the zenith to give too great a latitude, and the contrary of the southern ones, I shall now endeavour to account for this circumstance as follows.
- 12. Let Z (Plate VI. Fig. 1) be the true zenith of any place. ED, and Ed, the declinations of any two stars, one north, the other south, and nearly at equal distances from the said zenith. By the present experiments, if we use the declination of D, the latitude will fall somewhere in L: but if we use the declination of d, then it will fall on the opposite side, somewhere in [l]. Therefore the sum of the zenith distances DL + ld,

will fall short of the differences of declinations E D, and E d by the small are L l.

- 13. Let now the zenith be altered into ζ (Fig 2) so that d be now north of it, and let δ be the place of a third star, south of the zenith ζ . Then if we use the declination of d (which before gave us too low a latitude) it will now give it in λ ; and if we use that of δ it will fall in Λ south of the true zenith so that instead of having E D E $\delta = \sup$ of the four zenith distances, we have it $(Fig. 2) = DL + Ll + ld + d\lambda + \lambda \Lambda + \Lambda \delta$. That is, the four observed distances + the small arcs $Ll + \lambda \Lambda$. Therefore, if we suppose the declination E D to have been well determined, that of d is too low by the arc Ll, and that of δ , by $Ll + \lambda \Lambda$.
- 14. For example; let the true place of Aldebaran be at α , and its apparent place (affected by the error in the declination) be at D, Regulus at d and α Orionis at δ ; then at the observations at Paudree and Trivandaporan we have

D L 2° 46′ 33″ .682 N.
l d 0 24 43 .040 S.
d
$$\lambda$$
 1 10 9 .920 N.
 λ Λ 4 23 4 .810 S.
Sum, 8 44 31 .452

Now the mean declination of Aldebaran being Equal . . .
$$16^{\circ}$$
 6' 23" .73 And α Orionis = 7 21 36 .61

We have $ED-EA8$ 44 47 .12 8 44 31 .45

Diff. $Ll + \lambda \Lambda = 15.55$

and in order to have separately the values of these quantities, we have at

- 15. It is therefore evident that, taking the declination of Aldebaran to be corrected, and the observation good, then the declination of α Orionis should be increased by 15".557. Again, if we revert to what I have said higher up (Para. 7*) it may be inferred, that these errors proceed from assigning originally too great a difference of polar distance between the extreme stars from which the mean latitude is deduced (as for example between Arcturus, and Procyon:) hence the mean latitude, which is derived from both, will fall somewhat too low; both on account of the excess of this arc, and also of the error of polar distance of P D-P x.
- 16. It follows from this, that the successive small arcs of declination Dy, yv, vd, $d\delta$ (Fig 3.) will severally be too great, and this seems to be the case with the declinations of the twelve stars registered in Table II.
- 17. It is true that in the foregoing example, where I have compared the results given by Aldebaran, Regulus and a Orionis, I have selected an extreme

^{*} See also infra, Pa. 17.

case; but it is likewise evident, from what appears in Table IV. that were the mean of any number of northern and southern stars, to be taken separately at any two places of different latitudes, and in the order here described, the deviation would tend the same way as in the above exposition; and this, it may be supposed, by a certain quantity, thrown in from a distant zenith, on account of refraction, which cannot be corrected here for the quantity P x, nor done away by that due to the small arcs D y near the zeniths. Also that the latitude of ζ will fall too low by a certain quantity (PD - Px) D $x + \frac{Ll + \lambda \Lambda}{n}$, where D x is the whole error affecting the declination of D; and the divisor n, will be in some proportion of the error affecting the whole arc D δ (always in excess) from the extremities of which the mean latitudes of Z and ζ were deduced.

- 18. With the mean latitude given in Table II. we can therefore be no otherwise satisfied that from the following consideration, which as far as it affects our latitude seems to reduce the error $D x + \frac{L l + \lambda \Lambda}{n}$ to a mere nothing.
- 19. Regulus, a star of the first magnitude, no doubt attentively observed from every part of Europe, owing to its being very near the ecliptic, and situated only 9 minutes and 14 seconds from the zenith of the Madras Observatory, gives a latitude differing only from the mean results in Table II. by 20".22. This, no doubt, will be admitted to be a strong indication, that its declination, such as laid down in the tables, is very accurate. Regulus may therefore, without inconveniency, be taken as a visible point in the heavens, from which to lay down the position of the other stars; by this means the

zenith distances applied to it will give results consistent both with the observations at *Greenwich*, and at *Madras*, and thus form a link by which the two zeniths may hereafter be connected.

20. For this reason, in computing the Xth column in Table III. I have adopted the following process:

I.

21. It is greatly to be regretted that there are no instruments in the Madras Observatory, wherewith to take accurately great zenith distances; for corresponding observations of stars near the zenith of Greenwich and of Paris, would have afforded powerful means for correcting, after the same manner, the declinations of all stars in that extensive space of the heavens which divides the two Observatories.

ON THE SUN'S DECLINATION.

22. It is a fact deserving of notice, that the medium of 20 observations of Vol. X.

he sun, taken with the zenith sector, (Table V.) gives the latitude of the Observatory only 13° 4′ 3″.328 which is less by 10″.326 than that brought out by the stars in Table II.

- 23. The great difficulty of observing the sun, when in the meridian in tropical climates, owing to the great tremor of the atmosphere at noon time, induced me not to consult it in laying down the latitude of this Observatory.
- 24. However, on comparing the mean latitude in Table V. with the result of similar observations, formerly taken with the same instrument by Mr. Goldingham, (56 in number) I found that his latitude by the sun, namely, 130 4' 5".66, differed only by 2".332 from mine. There could therefore remain no doubt that the sun gave a lower latitude than the stars; and I was further confirmed in this opinion, on Major Lambton communicating to me his remark, that when observing the sun, in various parts of the *Peninsula*, his results were likewise in defect.
- 25. In order to make a further trial of this, let us compute the exact time when the sun was precisely in the parallel of the *Madras* Observatory, and then (taking the difference of longitude between *Greenwich* and this place to be well known) determine the sun's declination for that moment, from what it is given in the nautical almanac for two preceding, and two succeeding moons.
- 26. For this, taking the four zenith distances observed nearest and on each side of the zenith, and interpolating in the usual way *, we have

1)

Therefore a=11781; P=-1158; Q=10; $\frac{2P}{2}=Z=-237$. Hence $X=-\frac{z-1+\sqrt{z-1}|^2-\frac{2a}{2}}=1.50617$ or 1 day 12h 8' 52".84. Therefore

the sun was exactly in the parallel of the Observatory on the 25th of April at 12h 8' 52"84 P. M. Madras time, and taking the difference of longitude to be 80° 18' 30" E. which gives in time 5h 21m 14s, then the sun was in the said parallel on the 25th of April at 6h 47m 38". Greenwich time.

27. Now by interpolating again for the sun's declination at that instant, we have by the ephemerides

Therefore a = 45524; P = 1186; Q = -12, and $x = \frac{61.587}{48}$; and $y = a + Px + Qx \cdot \frac{x-1}{2} = 13^{\circ} 4'3''.159$, which differs only from the mean latitude by the sun (Table V.) by 0''.169.

29. Again; as to the time of apparent noon at Madras, the sun's transit was always observed with the fixed transit instrument, whilst I was observing it with the zenith sector; and these contemporary observations agreed always to a second of time. There can therefore be but little irregularity to apprehend from this element, and we are compelled, though under equal objections and difficulties, to ascribe the error to the declination either as assigned to the sun in the ephemerides, or to the stars in the catalogue for 1802; and I believe the former are the most likely to create suspicion.

30. Where great talents are combined with the most perfect instruments and assiduous practice, the cause can only be ascribed to that important correction on which we are still so very uncertain; and on this I shall venture an opinion, not altogether unsupported by experiments *; which is, that the declination of the sun being deduced from observations taken at noon, and that of the stars at night time, the effects of refraction at these different periods may possibly vary materially, and what is allowed for zenith distances of the stars, be too much for zenith distances of the sun; a surmise which explains at once why the sun, in the present instance, gives a lower latitude than the stars. This strongly suggests the expediency of further experiments for ascertaining a point, which, if established, would be highly conducive to important discoveries, in an interesting but imperfectly known branch of natural philosophy.

JOHN WARREN.

Observatory, near Fort St. Seorge, 1st of March, 1808.

^{*} See Asiatic Researches Volume IX. Article 1st, Page 13, the experiments on terrestrial refraction, where the refraction at night was something more than double what it was in the day-time, owing (it is supposed) to the increased moisture of the atmosphere.

TRANSLATIONS of two LETTERS of Nadir Shah, with Introductory
Observations in a Letter to the President.

BY BRIGADIER GENERAL JOHN MALCOLM.

TO HENRY COLEBROOK, ESQ.

President of the Asiatic Society.

MY DEAR SIR,

In the course of researches into the history of *Persia*, my attention was particularly drawn to a collection of letters, and original state papers, of Nadir Shah, published after his decease by his favourite secretary Mírza Mehedí. This collection is held in the highest estimation in *Persia*, not only from the light it throws upon the history of that nation, but from the stile in which it is written, and which is considered to be the best model for those who desire to attain excellence in this branch of writing.

I HAVE the pleasure to transmit, for the consideration of the Asiatic Society, translations of two of these letters which appear to be strongly illustrative of the character of NADIR SHAH, and the history of the period at which they were written, and which may perhaps be deemed on that account not unworthy of a place in the Society's Researches.

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The first is addressed to Muhammud Ali Khan, Beglerbeg* of Fars, and must from its tenor have been written early in the year 1731, a few months previous to the dethronement of Shah Tamasp, which took place in the month of August of that year. Nadir Shah published, at the period at which he wrote this letter, a proclamation or manifesto addressed to the inhabitants of Persia, in which, after stating his own successes against the Afghans and the other enemies of his country, and the evils which appeared likely to arise from the shameful peace which had been concluded with the Turks, he announces his intention of marching after the feast of Nau Roz (which occurred that year on the 22d of Ramzon or 10th of March) and of not only obliging the Turks to consent to more just terms, but of depriving of dignity and power, and considering as infidels, all those who should oppose his intentions. This manifesto, as well as his letter to the Beglerbeg of Fars, sufficiently prove, that his designs were at that moment more directed against his own sovereign than that of Constantinople.

THERE is no epoch in the life of Nadir Shah at which he acted with more consummate art and policy, than upon this occasion. The crown of Persia was completely within his grasp. But he appears to have considered it as indispensable to have his right universally acknowledged by his countrymen before he seized it. He had within a period of thirteen years risen from obscurity to unrivalled pre-eminence in the service of his weak monarch; and, by his wonderful valour and conduct, had not only rescued his country from the Afghans, the Turks and the Russians, who taking advantage of the decline

^{*} Governor of Persia proper.

of the Sofariyah dynasty and consequent dissentions of the nobles of the empire, had made themselves masters of its richest cities and finest provinces; but he had received the military spirit of the Persians, and roused a nation sunk in sloth and luxury, to great and successful exertion. But neither this success, the imbecility of Shah Tamasp, nor a reliance upon his own fame and strength, could induce him to take the last step of usurpation, until he had by his arts excited a complete contempt in the minds of his countrymen for their reigning sovereign, and a pride in his glory, that was likely to make his elevation seem more the accomplishment of their wishes than of their ambition. The great ability with which he laboured to effect this object, is admirably shown in his letter to Mu-HAMMED ALI KHAN. He commences by stating his victories over the Afghans, whom he had not only completely expelled from the empire, but pursued into their own territories. He next exposes the impolitic and humiliating conditions of the treaty which the king had concluded with the Turkish government; and, on the ground of its bringing disgrace on Persia, asser's his right and intention, as the successful champion of the independence of his country, to abrogate the ignominious engagement; and while he flatters the national spirit of the Persians by anticipating success against their ancient rivals the Turks, he endeavours to enflame all their bigotry by giving the colour of religion to the cause which he has undertaken; and calls upon them, with the well feigned zeal of an enthusiast, to fight for the preservation and existence of the holy sect of Shiah, a schism which, as appears from his whole life, he always considered to be a heresy, and which it was the first and last object of his reign to eradicate and destroy: and, to make the effect of this letter complete, he concludes it with the usual declaration of all Muhammedan leaders who have made religion the pretext of war, that he should consider and punish as infidels all those that refused their concurrence and aid in the sacred cause to which he professed himself devoted.

The second letter is from Delhi, and must have been written immediately after the arrival of Nadir Shah in that city, in the month of February 1738. It commences with a clear statement of the causes of his invasion of Hindustan; which is followed by a concise relation of his military operations, and a particular account of the celebrated battle of Karnál, in which he defeated the emperor of Indiá. The account of occurrences before the action, the action itself, the subsequent visit which Nadir received from Muhammed Shah, and his resolution to replace that monarch upon the throne of his ancestors, are stated with equal perspicuity and force, and the whole of this letter is written in a less inflated stile than any oriental composition of a similar nature which has fallen under my observation. It records events of almost unparallelled magnitude, and the expression is (as far as I can judge) never more warm than what the subject justifies, and indeed requires.

These letters are perhaps calculated to give the reader a more favourable impression of the character of Nadir Shah, than any thing before published relating to that great and successful conqueror; who is chiefly known in Europe by the report of his tyranny and cruelties, and above all by the massacre of Delhi, which reached European narrators through the exaggerated statements of the surviving inhabitants of that unfortunate city. It is far from my intention to trouble you with what the Persian advocates of Nadir Shah state in vindication of his conduct upon that memorable occasion; nor do I mean to enter in this place into any inquiry Vol. X.

regarding the character and actions of this extraordinary man; but you will, I am assured, forgive me, if I offer some observations on the manner in which the history of NADIR SHAH and of several other Asiatic princes of eminence have been given by European writers.

In describing eastern despots, there has often appeared to me a stronger desire to satisfy the public of the author's attachment to freedom and his abhorrence to tyranny, and despotic power, under every shape, than to give a clear and just view of those characters whose history was the immediate object of his labours. This usage may no doubt, in some points of view, appear laudable. It may have a tendency to impress those who peruse the work with a still greater love of the first of all human blessings, rational liberty. But others, who look to a volume of Asiatic history with no other desire but that of obtaining historical truth, and a correct knowledge of the social and political state of the nation that is described, will be disposed to regret that there was any prejudice on the mind of an author or translator, that gave him a bias unfavourable to the gratification of their hopes. They will wish, that he had looked upon the political world with more toleration; and though they may not censure his warm admiration of the government of his own country, they will lament the existence of a feeling which was adverse to an impartial consideration of events illustrative of the general history of the human mind, and which has led him to stamp with general and unqualified reprobation rulers, who, however low their pretentions may be rated, if tried by the standard of countries towards whom that over which they reigned had no one point of affinity, must have stood high in the scale, if measured by that more applicable principle, which takes as its foundation, the actual state of the community in which such characters

were born, the means which they possessed, and the actions which they achieved; and, on this fair and just ground, pronounces with truth and discernment, on the right they had, from their qualities and achievements, to that preeminence which they attained.

IF such an author were to write the history of NADIR SHAH, he would probably see something more than a mere usurper and tyrant in the man, who, born in a low rank of life, at a period when his country was overrun by foreign invaders, raised himself by the force of his own genius and courage to the highest military rank; attacked, defeated, and expelled every enemy from Persia; and afterwards, with the universal consent of his countrymen, seized [the sceptre which his valor had saved, and which a weaker hand could not have wielded. Such an historian, after dwelling with pleasure if not enthusiasm, on the early events of his life, would accompany NADIR with satisfaction in his war upon those barbarous Afghan tribes, who for a series of years had committed the most horrid ravages in Persia; and though it would be impossible to commend the motives that led that monarch to attack the Emperor of India, the extraordinary valour and conduct which he displays in that enterprise, the exercise he gave by it to that military spirit which he had with such difficulty rekindled among his countrymen, and the magnanimity with which he restored the crown (which he had conquered) to the weak representative of the illustrious house of Timur, might, without offence to truth, be stated by such a writer in mitigation of that insatiable desire of glory which prompted the enterprise, and of those excesses by which it was attended.

THE actions of NADIR SHAH, until the period of his return from India, are à theme of constant praise among his countrymen. Of the remainder

of his life they say, that, though it was not unmarked by great deeds it was too evident that he had become intoxicated with success, and no longer acted under the guidance of reason; and all *Persian* authorities agree, that, after he had in a paroxysm of rage, or rather madness, put out the eyes of his eldest son Reza Kuli Mírza, he became altogether insane. But neither this act of attrocity, nor the other cruelties which Nadir committed towards the close of his reign, have eradicated from the minds of his countrymen the sentiments of veneration which they entertain for his memory, as the deliverer of his country from its numerous, cruel, and insolent enemies.

I MUST trust to your indulgence to excuse the length of this letter. If the accompanying translations are deemed worthy of being inserted in the transactions of the Asiatic Society, I hope to be able to forward hereafter others of a similar kind.

I am, My Dear Sir,
with sincere respect and esteem
Yours faithfully,

JOHN MALCOLM.

31st October, 1808.

LETTER I.

(Written before NADIR SHAH ascended the throne,) addressed to MUHAMMED ALI KHAN, Beglerbeg of Fars; and giving an account of the conquest of Herat.

TO the highest of the exalted in station, the Chief of the great Nobles Muhammed Ali Khan, these happy tidings be conveyed.

AIDED by the bounty of an all powerful Creator, and the happy auspices of the house of HAIDER * and the twelve holy Imams (on whom be eternal mercy,) with my crescent formed and all subduing scimitar, which in glory resembles the recent moon, and with my powerful and victorious army, and soldiers of propitious destiny, who are those sent from heaven †, I have, under the influence of good fortune, surpassed all others in the capture of fortresses and cities.

At this happy and auspicious period, the host of Afghans of the tribe of Abdall, who fled from the edge of the conquering swords of my dragon-like warriors, retired, as a spider within its web;, into the fort of

^{*} ALI. Here the tribe of Shiahs are meant, who are supposed to be under ALI's protection, and in fact part of his family.

[†] Sentences marked in italics, are passages from the Koran, of which I have concisely rendered the meaning.

[‡] From the Koran. The passage literally signifies "like unto the spider that maketh himself a house." But the weakest of houses surely is the spider's.

Herat. Their hearts were distracted with fear, and the pillars of patience and fortitude, that had supported their resolution, were cast down. Reduced to distress by the complicated evils of famine and of the sword, they implored mercy; and "as clemency is enjoined to the powerful," I permitted them to evacuate the fort; and have sent (with a view to disperse them) sixty thousand of this tribe with their families, who were reduced to great misery, to the city of Khar Shahyar in the province of Khorasan. By the favour and blessing of that omnipotent being, by whom I have been protected, the fort of Herat is in my possession; and the whole of the tribe of Afghans, as also of the Ghelyahs* of Candahar, who were in the bounds of alliance with them, have submitted; and have placed upon their necks the collar of obedience..

In the midst of these actions, by which the whole country from Herat to Candahar has been completely subdued, and the disturbers of tranquillity on the borders of Khorasan exemplarily punished, I learn by a letter from Muhammed Reza Khan, who was sent ambassador to the court of Rúm , that he has concluded a treaty with the king, by which it is agreed that the Turkish empire shall possess the territory on the other bank of the river Aras; and the Persian, all upon this: but no arrangement appears to have been made for the liberation of the prisoners of the sect of Ali who are confined in the Turkish dominions.

It is an incontestible truth, that the existence of humble persons, like us, who, from the favour of a divine providence, have obtained rank and pre-eminence over others, is for no other purpose than that we should be the friends

A. particular tribe of Afghans.

[†] Constantinople,

of the sect of *Shiahi*, that we should relieve the distress and dispel the grief of the poor and afflicted; ("for to protect the ruled is the duty of the ruler.") That we should combat the enemies of the weak, and eradicate the distemper of sedition from the body of the state: not that (deaf to the voice of the helpless and unmindful of those that are prisoners) we should break such sacred engagements, to conciliate the approbation and yield to the power of a proud enemy.

By the great-and powerful God, this day is big with ruin to their enemies and with joy to the sect of Shiahs, the discomfiture of the evil-minded is the glory and exaltation of the followers of Ali. When the avenger is at hand the wicked tremble and are appalled. Their eyes roll wildly like one in the agonies of death-Let the danger pass over, and it is forgotten. They revile and mock with their tongues.

This is a just description of the *Turkish* tribe. Why should we listen to more prevarications? Or why confine ourselves to the bank of the *Aras**; when it is manifest, that the peace, which has been concluded, is contrary to the will of God and irreconcileable to the wisdom or dignity of imperial greatness.

I HAVE stated to the minister of the exalted prince, that such a peace cannot be permanent, and that I conclude the mission of an ambassador to have been an act of compulsion, as I cannot believe that the prince would, under other circumstances, have consented to such a degradation of his dignity. But at all events, as offerings are continually made in the palaces of the lords of the faithful, and the holy men with broken hearts are praying to their divine creator for

the release of the Musulman prisoners; it was my determination, after receiving leave from the holy prince of regions * Ali IBN Mausa Reza (on whom be eternal blessings) to march on the second day after the feast of Feter † towards the disputed quarter, aided by the divine power, and accompanied by an army raging like the troubled ocean.

VERSES.

I shall overflow my banks, and fly like an impatient lover to his mistress; Like a torrent, will I rush, with my breast eyer on the earth.

HARIZ! if thy footsteps desire to gain, by the true path, the holy house, Carry along with thee the virtue of the exalted of Nejef.

I HAVE represented also, that I have sent the high in dignity, MAHSUM ALI BEG GERAILI, ambassador to the court of Rúm, and that he is attended by a respectable escort; and that he is fully acquainted with my wishes and sentiments.

You will no doubt be rejoiced to hear, that, as it was to be hoped from the goodness of God, this peace with the *Turks* is not likely to endure; and you may rest in expectation of my approach. For, by the blessing of the most high, I will advance immediately, with an army elated with success, skilled in sieges, numerous as emmets, valiant as lions; and combining with the vigor of youth the prudence of age. I will attend on the exalted prince, and then proceed towards the *Turkish* frontier.

[&]quot; One of the twelve Imams, who died at Meshed in Khorasan, where he is buried

⁺ This feast happens at the conclusion of the month of Ramzan.

VERSE.

Let the cup-bearer tell our enemy, the worshipper of fire, To cover his head with dust; For the water, that had departed, is returned into its channel.

Such of the tribe of Shiahs, as are backward on this great occasion, and are reconciled to this shameful peace, should be expelled from the faithful seat; and for ever counted among its enemies. To slaughter them will be meritorious; to permit their existence, impious.

- " I have heard, that, during the reign of MUTASIM,
- " A woman of Ajim was taken by the foe:
- " Her eyes became channels for torrents of blood.
- " She thus complained of her wretched state.
- " Oh MUTASIM! why art thou supine? I call for justice!,
- " Thy subject is a prisoner in the hands of thine enemy,
- " Thou art the flame in the lamp of the country.
- " On thee depends the shame or glory of the nation.
- " Thou art the protector of the poor and wretched:
- " All their children are the children of their sovereign!"
- " Her masters, astonished at these exclamations,
- " In rage struck her on the face;
- " And said, " now let your monarch MUTASIM,
- " With all the renowned heroes of Persia,
- " Collect an innumerable army,
- " And come, if they chose, to thy rescue."
- " This speech soon reached the great MUTASIM,
- " Who immediately published throughout Persia,
- " That all, who pretended to the name of men,
- " Should instantly assemble in arms.
- " When the monarch had completed his mighty preparations.
- " He soon heaped destruction on the heads of his enemies *.
- " To release one prisoner from the hand of the foe,

[•] This story is related by historians, of MUTA'SIM, the son of HA'RUN'AL RA' SHID, and eighth Khalif of the house of ABAS. D'Herbelet Bibl. Or. 639.

- " If an incomparable army were assembled,
- " At this moment, when numbers of the Shiahs of Persia
- " Are prisoners in the hand of cruel men,
- " And, with their lamentable cries uttered morn and eve,
- " Have rendered dark and gloomy the azure sky;
- " It is acknowledged by the tribe of Shiahs,
- " That the king t of Khorasan, the Imam of the age,
- " Is not considered by the men of Persia
- " As less honourable, nor of lesser fame, than MUTASIM!
- "Then, by the mercy and greatness of the creator,
- " Victory is still declared to these soldiers.
- " Under the auspices of the most merciful of the world,
- " I have taken ample vengeance on the Afghans.
- " Aided by the fortune of the lord of Khorasan,
- " I have been revenged on the whole tribe of the Afghans.
- " There remains not in this quarter, at this period,
- " Aught of that tribe but their name.
- " In this war great actions have been fought,
- "The Kezel-bashes * became each a sharp pointed thorn.
- " From the slaughter that has been made, and the blood that has been shed,
- " Our high polished scimitars have received a purple stain.
- " I have taken from the worthless foe,
- "With my sword, the region from Herat to Candahar!
- " By the sacred temple of the lord † of Nejef,
- " We will turn with vehemence to that quarter:
- " We will perform a pilgrimage to that threshold: .
- " And we will afford protection to our prisoners:
- " We will take ample vengeance of the Turks.
- " We will punish ‡ all our foes.
- " And in this war, whoever continues inactive,
- " Or from baseness remains in pretended ignorance,
- "Both his property and his blood are lawful prize.
- " He is to be considered out of the pale of the true faith."

[†] ALI MAUSA REZA, the seventh Imam, buried at Meshed.

^{*} Persians; literally Redheads, a name given to them, from the circumstance of Shah Ismail having directed all true followers of the sect of Shiah to wear red caps.

[†] All, the son-in-law of the prophet, who is buried at Nejef.

¹ Literally, furbish the garments.

Most Noble Lord, if the state of the province of Fars will permit, lose not a moment in repairing to the court of the most exalted prince at Ispahan; and represent to him that, as the peace which has been concluded will benefit no person whosoever, and can in no light be viewed as proper or reputable, it neither meets the approbation of the nobles nor the commonalty of the empire.

But, if you should be prevented from moving to the capital, owing to the dispute with the Arabs not being adjusted, let me be instantly informed. If you are able to quell these troubles, it is well. But, if you require aid, make me acquainted; and a detachment of my victorious army shall march to your support.

KEEP me regularly informed of the news of your quarter.

LETTER II.

From NADIR SHAH, to his son REZA KULI MIRZA, giving an account of the conquest of Delhi.

To the exalted and glorious son of our wishes the valiant REZA KULI MI'RZA, who is our vicegerent in *Irán*, the seat of our empire; our most beloved, the pre-eminent in royal rank, allied to us in dignity:—be these glorious commands known.

AGREEABLY to our former communications, after the defeat of Afghan prince, Ashref Ali' Merdan Khan was appointed our ambassador to the

court of Hindustan for the purpose of representing to that court, that as the turbulent Afghans of Candahar and its neighbouring provinces were to be considered equal enemies to both states, it would be advisable to appoint an army from Hindustan, to occupy the passes and prevent the retreat of the marauders. The emperor Muhammed Shah gave a ready assent, and concluded a treaty to the proposed effect. After the return of our ambassador, we sent Muhammed Ali' Khan to the court of the Indian emperor to repeat our instances on this subject, and Muhammed Shah confirmed his former engagement.

After our glorious and victorious standards returned to Candahar, we understood from our conquering generals employed with a part of our force in the reduction of the Afghans of Kallat and Ghizni, that Muhammed Shah had in no respect fulfilled his engagements; and that no appearance of an Indian army had been seen in that quarter. This intelligence induced us to send with the utmost expedition, Muhammed Khan Turkoman to the court of Delhi to remind the Emperor of his promises; but that sovereign and his ministers, in dereliction of their former engagements, treated the subject with neglect omitted answering our letters, and even put restraint on the person of our ambassador.

In this situation we were impelled to march against the Afghans of Ghizni and Cabul, and after punishing the refractory mountaineers in that quarter, as we considered the neglect and contempt with which Muhammed Shah had behaved, and his conduct to our ambassador irreconcileable with friendship, we marched towards Sháhjehánábád.

OF our success in reducing the provinces of Peshavir and taking possession of Lahore, the former seat of empire, our beloved son has already been informed. We marched from that city the last day of Shavàl, and on Friday the 10th of Zelkád reached Ambala, forty farsakhs from Sháhjehánábád. We here learnt, that Muh'ammed Shah had collected from Hindustán and the Dec'hin a numerous force, and accompanied by all his nobles, by an army of three hundred thousand men, three hundred pieces of cannon, three or four hundred elephants, and other equipments in proportion, had marched from Delhi and arrived at Pánipet, a village twenty farsakhs from Ambala. We immediately directed the superfluous and heavy baggage of our conquering army to be lest at Ambala, and advanced to meet the enemy. Muh'ammed Shah also lest Pánipet and marched to Carnál, which is twenty-five farsakhs from Delhi.

In the course of our march we detached a force of five or six thousand men in advance, who had orders to observe the appearance, numbers and order of Muhammed Shah's army. This body, when about two farsakhs from Carnál, fell in with the advance of the Hindustání army, which amounted to twelve thousand men: these they attacked and totally routed; presenting us with their general and many others, whom they made prisoners.

This signal defeat put a stop to Muhammed Shah's further advance. He halted at *Carnál* and surrounded his army with a trench: he also constructed ramparts and batteries on which he placed his cannon.

We had sent a detachment to march to the east of Muh'ammed Shah's

camp and post themselves on the road that led to *Delhi*: this party received accounts on the night of Tuesday the 15th, that SAADET KHAN, known by his title of *Burhán ul Mulk*, and one of the chief nobles of the empire had reached *Malabat* accompanied by an army of 30,000 men, a train of artillery, and a number of elephants, and intended forcing a junction with Muh'AMMED SHAH.

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With a view of intercepting this force, we marched our army, two hours before day break, to the east of Carnál, and occupied the road between that village and Panipet. This movement, we hoped, would force Muh'ammed Shah from his entrenchments. About an hour and a half after day light we had passed Carnál, and gained the east side of the Hindustání camp, when the advance guard made prisoners some stragglers of Saadet Khan's party, from whose information we learnt, that that general had succeeded in his design of forming a junction with the emperor; in whose camp he had arrived at ten o'clock the preceding night.

On this intelligence we were pleased to order our royal tents to be pitched on the ground which we then occupied, opposite to the camp of Muhammed Shah, from whom we were distant about one farsakh.

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As the junction of SAADET KHAN had been the cause of MUHAMMED SHAH's delays, he conceived on that event his appointments to be complete; and, leaving two thirds of his cannon for the protection of his camp, he advanced with a great part of his army, a third of his artillery, and a number of his elephants, at twelve o'clock the same day, half a farsakh in the direction

of our royal army; and drew up his troops in order of battle. Placing himself in the centre of the advanced lines, he stationed the remainder of his troops in the rear as a support. Their numbers were incredible. They occupied, as close as they could be drawn up in depth, from the front line to the entrenched camp, a distance of half a farsakh; and their front was of equal extent. The ground was every where dark with their numbers, and to judge from appearance, we should suppose they were ten or twelve times more numerous than the army of the Abdal Gardoghly.

WE, whose only wishes were for such a day, after appointing guards for our camp and invoking the support of a bountiful creator, mounted and advanced to give battle.

For two complete hours the battle raged with violence, and a heavy fire from cannon and musquetry was kept up. After that, by the aid of the Almighty, our lion-hunting heroes broke the enemy's line, and chaced them from the field of action, dispersing them in every direction.

SAADET KHAN mounted on his state elephant, his NISHA MUH'AMMED KHAN and other relations, fell prisoners into our hands. Samsa'm Alí Khan Dauran Amir ul Omra Baha'dur, the first ministerof the empire, was wounded. One of his sons, with his brother Muzefer Khan, was slain; and another of his sons, Mír Aa'sh'ue, was taken prisoner. He himself died the following day of his wounds.

Was'ılı Khan, the commander of the emperor's body guard, Shad'al Khan, Amir Kuli Khan, Ali Muhammed Khan, Mir Husen Khan,

KHA'JA ASHREF KHAN, ALI-YAR KHAN, A'AKIL BEG KHAN, SHAHD'AD KHAN Afghan, AHMED ALIKHAN, RAZIN RAI KHAN, commander of the artillery, as also Shir Khal'u, with about three hundred other nobles and leaders, of whom fifteen were commanders of seven thousand, of four and of three thousand, were slain.

Muh'ammed Shail, with Nizam ul Mulk, ruler of the seven provinces of the Dec'hin, and a chief noble of the empire, Kamer ul Din Khan, chief vizier, and some other nobles of less note, protected by a covering party which had been left, made good their retreat within the entrenchments, and escaped the shock of our victorious swords

This action lasted two hours; and for two hours and a half more were our conquering soldiers engaged in pursuit. When one hour of the day remained, the field was entirely cleared of the enemy; and as the entrenchments of their camp were strong, and the fortifications formidable, we would not permit our army to assault it.

An immense treasure, a number of grand elephants, the artillery of the emperor, and great speils of every description, were the reward of our victory. Upwards of twenty thousand of the enemy were slain on the field of battle, and a much greater number were made prisoners.

IMMEDIATELY after this action, we surrounded the emperor's camp, and took measures to prevent all communication with the adjacent country, preparing at the same time our cannon and mortars to level with the ground the fortification which had been erected.

As the utmost confusion reigned in the imperial camp, and all discipline was abandoned, the emperor, compelled by irresistible necessity, after the lapse of one day, sent Nizah ul-Mulk, on Thursday the 17th, to our royal camp; and the day following Muh'ammed Shah himself, attended by his nobles, came to our heaven-like presence, in an afflicted state.

WHEN the emperor was approaching, as we are ourselves of a Turkoman family, and Muh'ammed Shah is a Turkoman, and the lineal descendant of the noble house of Gaurga'n'1; we sent our dear son Nasir Ali Khan beyond the bounds of our camp to meet him. The emperor entered our tents, and delivered over to him the signet of our empire. He remained that day a guest in our royal tent.

Considering our affinity as *Turkomans*, and also reflecting on the favors and honors that befitted the dignity and majesty of a king of kings; we bestowed such upon the emperor, and ordered his royal pavilions, his family and his nobles, to be preserved; and we have established him in a manner equal to his great dignity.

At this time, the Emperor with his family and all the lords of *Hindustan* who marched from camp, are arrived at *Delhi*: and on Thursday the 29th of *Zilkád* we moved our glorious standard towards that capital.

IT is our royal intention, from the consideration of the high birth of Muh'ammed Shah, of his descent from the house of Gaurga'n', and of his affinity to us a *Turkoman*, to fix him on the throne of empire, and to place the crown of royalty upon his head.

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PRAISE be to God, glory to the most high, who has granted us the power to perform such action! For this great grace which we have received from the Almighty, we must ever remain grateful.

God has made the seven great seas like unto the vapour of the desart, beneath our glorious and conquering footsteps and those of our faithful and victorious heroes. He has made, in our victorious mind, the thrones of kings, and the deep ocean of earthly glory more despicable than the light bubble that floats on the surface of the wave; and no doubt his extraordinary mercy, which he has now shown, will be evident to all mankind.

As we have taken possession of a great number of cannon, we send 26,000 Moghals of Iran and Turan, with a detachment from our own conquering army, and a body of artiliery with some large elephants, whom we have directed to march to Cabul. No doubt our sons will inform us of the affairs of that quarter.

AFTER the arrival of your letter, we will either order the detachment which we have sent, to proceed to Balkh or to go to Herat.

WE have appointed the high in dignity Aa'shur Khan to march to Balkh, after the Nau róz, (22d March) which he no doubt will do.

Consider our glorious victory as derived from the bounty of the creator of fortune beyond all calculation. Make copies of this our royal mandate and disperse them over our empire, that the well wishers of our throne may be happy and rejoice, and our secret enemies be dejected and confounded. Be you

constantly employed in adorning and arranging your government; placing your hopes in the favor of the most high, so that by the blessing of God, all those, whether near or distant, that are not reconciled to our glorious state, and are brooding mischief, may be caught in their own snares; and all real friends, who are under our dominion, may attain their wishes, and prosper under the auspices of our munificent government.

Dated 29th Zilkåd, 1115 Hejira, Shahjehanabad or Dehli.

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